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MARK AKENSIDE, M.D.

By R. S. ELLERY,
Melbourne.

THE historian and the undertaker have at least one thing in common: they deal with the dead. The one buries, the other resurrects. The one claims all that is mortal for a pious and priestly interment in the silent earth, while the other, turning away from corruption, gives such measure of immortality to his subject as his literary alchemy will admit. For the majority the undertaker's work stands undisturbed; the historian makes no claim. It is only at rare intervals that he comes among the dead, seeking some tormented spirit whose winding-sheet of oblivion he will transform into the shining garments of remembrance. And so the pages of history are enriched with the spoils of the cemetery and the dead arise to tell fresh tales.

If, therefore, an excuse is necessary for disturbing the shade of Mark Akenside, it is that, whereas a number of medical men have deserted medicine for literature, Mark Akenside may be said to have deserted literature for medicine. Truancy from the ranks of medicine has existed in every age; and many who studied and practised the healing art, like Seymour Haden and Mungo Park, gained later fame in some quite distant fields of human endeavour. But poetry has been the chief loadstone in drawing men away from the Hippocratic tradition. It attracted Crabbe and Goldsmith no less than Bridges and Keats, who renounced his gallipots as soon as he graduated. It was not a question of the quill being mightier than the scalpel or the poem more potent than the pill; it was just that celestial fire which smouldered in these men's minds which made them pour their molten imagery into verse. And it is all the more surprising that in studying medicine Keats laid the foundations of a literary immortality, while Akenside, in putting away poetry, sank into a life of medical mediocrity. His early poetic promise was never justified, and inspiration perished in a string of sterile odes when he turned from the pleasures of the imagination to the "dull engagements" of a bustling world.

It is difficult to imagine what adverse forces quenched so bright a poetic flame. In the frolic vein of youth Akenside railed against "the pedantic rules of reason" and the "vulgar bondage of order" and deliberately cultivated the transports of poetic vision, dipping his pen in the sunset's liquid gold. He apostrophized beauty in magic phrases, calling upon Science to "bless his labouring mind" and disclose for him the working hand of Nature. He lamented the prostitution of the poet's gifts to "the vile service of some fool in power"; but being unable to stretch the lyric wing over the ordinary affairs of men or to "lash the stubborn age with laughing satire", he felt it vain to rave at destiny, even though that destiny were a humble home behind a brass plate in Bloomsbury. And though Science frowned not on his humble birth, medicine certainly marked him for her own.

Divided Interests.

The South Sea Bubble had burst and Pope had just completed his translation of the Iliad when, in 1721, in a dim-lit room above his father's butcher-shop in Newcastle-on-Tyne, Mark Akenside was born. Genius has been cradled in more unpretentious places and flourished in an atmosphere polluted by more than the odour of the abattoir. But there is little to suggest even the elements of culture in the home of the Newcastle meat vendor. The details of the child's life are meagre. The archives of his boyhood are bare of incident. His boyish prattle is unrecorded, his pranks and adventures are forgotten. A cut from his father's cleaver rendered him lame and may have debarred him from taking part in athletics and thereby helped to foster an inclination for study and reflection, which grew as he passed from the Free School in Newcastle to the private academy of a dissenting minister named Wilson.

Mothers of geniuses are often women of outstanding character, deep feeling and more than average intelligence; but the biographers say nothing about the Mary Lumsden who married Akenside the butcher, and who, like many another, had hoped to see her son enter the Church. The Akensides were Dissenters, and when their son, nearly eighteen years of age, was sent to Edinburgh to study for the ministry, he received financial assistance from the Dissenters Society. Whether he commenced his theological studies on account of some fancied attraction for the religious life or merely to gratify his mother's wish is not known; but after very few months in Edinburgh, having

made contact with students in other branches of learning, he changed his mind and, repaying the money he had borrowed, renounced his theological intentions and decided to study medicine. What actually caused him to transfer his allegiance from the soul to the body of man has not been related; but the lamp of Science, dim though it was before Pasteur and Lister, was a better guide to the study of nature than the deceptive marsh-light of theology.

As examinations were not obligatory and medical teaching was not standardized, Akenside, after attending lectures in botany and chemistry and familiarizing himself with the accepted "Herbals" was, in 1740, elected a member of the Edinburgh Medical Society. At the meetings of this society he aroused interest by his powers of rhetoric. In 1741 he returned to Newcastle, apparently preferring poetry to the practice of his new profession. In his nonage he had published a few poems in *The Gentleman's Magazine*, and while studying medicine in Scotland he continued to write verse. For several years after leaving Edinburgh he remained at home preoccupied with his great poem "The Pleasures of the Imagination". This when completed was offered to Dodsley, who on Pope's advice published it, and the poet in his twenty-third year became more famous for this rhetorical monument of blank verse than for all his later medical writings put together.

The chief feature of this long yet richly ornamented poem is its undisguised dulness; and though the author rewrote it at least twice during his lifetime, saving up treasured lines and pregnant phrases, dropping some parts and adding others, he did not succeed in making it less dull. It is a series of poetic images with various verbal embellishments strung together on a theme which never becomes quite clear. It is redolent with poetic scholarship, with here and there lines of great beauty and power; but the philosophic discourse which is the *raison d'être* of the poem simply meanders on through all the realms of monotony. His medical inclination peeps out here and there when he seeks

> to explore
> What healing virtue swells the tender veins
> Of herbs and flowers;

or notes

> The dumb palsy of nocturnal fear,
> Or those consuming fires that gnaw the heart.

But on the whole poem posterity's judgement has been harsh: a jumble of metaphysical rhetoric spun into a tissue of fine phrases and arresting imagery.

Herman Boerhaave, one of the greatest medical teachers in the early eighteenth century, had made Leyden a famous medical centre; and although he had been dead for six years it was to this clinic that Akenside went in 1744, and in that same year gained his degree of Doctor of Physic with a dissertation on the "Origin and Growth of the Human Fœtus". While in Leyden he maintained a lively correspondence with his friend Jeremiah Dyson, and together they wrote and published an epistle to Warburton, the celebrated divine, who had attacked Akenside's *magnum opus*, on the subject of ridicule as a test of truth. This pamphlet added nothing to Akenside's reputation, and he returned to England to practise medicine in Northampton in opposition to the well-established Dr. Stonehouse. He had not, however, the temperament of a country practitioner, and patients were slow to come. While waiting he wrote several odes and his well-known "Epistle to Curio", a spirited piece of lashing invective against Pulteney, a quondam hero and patriot, who bartered his beliefs for a barony.

In March, 1745, still waiting for patients, Akenside collected and published his odes. These are both dull and formal, lacking in passion and spontaneity, and they were easily eclipsed a few years later by those of Collins and Gray. He wrote several essays for Dodsley's *Museum* and some further odes to Dr. Caleb Hardinge and the Earl of Huntingdon; but these, together with the "Hymn to the Naiads" and "Ode to the Evening Star", brought his literary activities to a close. In later life, lacking inspiration and giving way to the claims of fastidiousness, he frittered and pruned and revised his earlier poetic productions without improving upon the originals; but the poetic fire had subsided into ashes, and interest in medicine gradually gained the ascendant. He left the lower slopes of Parnassus for the mundane commerce of men, and even found Tom's Coffee House more congenial than the temple of Æsculapius.

Eighteenth Century Backcloth.

Akenside's lifelong friend Jeremiah Dyson was now a man of substance, having been elected clerk of the House of Commons; and in 1747 he invited Akenside to stay with him at Hampstead. The unsuccessful practitioner of Northampton eagerly accepted this invitation to London, seeing in the great metropolis ample scope for his growing ambition. He stayed under Dyson's roof only a few months before settling in his own apartment in Bloomsbury Square. Dyson was a friend indeed, and played the good Samaritan still further by allowing Akenside the sum of £300 a year so that he might live in reasonable comfort, freed from the cares incidental to a medical practice which never grew beyond modest dimensions.

The London in which Akenside now settled was the London of Dr. Samuel Johnson and Sir Joshua Reynolds, with its coffee houses and its taverns. It was a conglomeration of crooked streets and shoddy tenements, with here and there churches of great beauty and some dignified public buildings. It was a mixture of squalor and splendour, with wealth and poverty living side by side. Overcrowding in the poorer parts of the city was deplorable. The window tax, which was made more stringent in 1746, had the effect of shutting out light and fresh air and driving many people into their cellars and basements. The street gutters ran with filth and debris. Water was drawn from surface wells or from the parish pump. The common privy was placed below the basement stairs over an open cesspool, an ideal breeding place for flies. Soap was scarce, baths were almost unknown, and cleanliness was as far away from godliness as possible. Yet the city streets were a blaze of colour and movement. Lamp-lighters and link boys jostled with apple women and chimney sweeps; footpads and pickpockets threaded their furtive way through the gay crowds; milliners and barbers, messengers and law clerks rubbed shoulders with women of fashion and the rich city merchants in Poultry Street, Bread Street or Tyburn Road. Great thoroughfares of roaring traffic converged on the busy hive of St. Paul's. Narrow courts and crooked lanes were crowded with pedestrians. The cobble-paved streets were noisy with the clatter of hooves and the clang of iron-clad wheels; and this weird symphony of traffic was here and there swollen with the noise of street criers and ballad singers, the scavenger ringing his bell or the newsboy blowing his horn. It was the London of old "Bedlam" and Mrs. Salmon's Waxworks and oil lamps and watchmen crying through the quiet of the small hours; the London of the twopenny lodging house, and fireworks and music at Vauxhall; the London with its hordes of homeless children, its fops and beaux; the London where men played piquet and loo, wore three-cornered hats and danced the minuet and quadrille. It was an expanding London with all the prosperity of a merchant's city. It housed the ragged and uncomplaining poor, but gave ample scope for the people of quality to study the elegance of behaviour. Men in buttoned breeches and broidered waistcoats went to the coffee houses and taverns for gossip and news, gambling and the light exchange of wit. Blue-stockings and barber-surgeons mingled in the theatres. Royal boating parties threaded through the traffic of the Thames. Learned men lingered at the Inns of Court and Doctors' Commons; church wardens collected their guineas at Saint Martin-in-the-Fields, while sly apothecaries and pompous physicians waxed fat with their secret remedies and battled blindly against gaol-fever and scrofula.

Into this busy hum of London came Akenside, with a doctor's degree and a poet's reputation, to work his way to popular recognition and academic distinction. Though he was the son of a butcher he resisted the temptation to become a surgeon, identifying himself with Richard Mead, William Heberden (the elder) and John Fothergill rather than with William Cheselden and John Hunter. Pride may have had a hand in his choice, for surgeons in his day had not attained the social distinction generally claimed by physicians. Surgery was still trammelled in its tonsorial traditions. Barber-surgeons, not being required to hold a university degree, were less cultured than physicians, whose oral examinations were conducted in Latin and whose intellectual qualifications had in most cases been gained at an English or continental university. Akenside, after several uneventful years in London, spent, as one may suspect, more in the literary circles than at the bedside, received a doctor's degree from Cambridge and in the same year (1753) was elected a Fellow of the Royal Society.

The eighteenth century witnessed the decline of the midwife; her province was gradually invaded by men trained in the art of

accouchement. And the proper teaching of this branch of medicine owes much to one of Akenside's contemporaries, Dr. William Smellie, who was among the first to make use of the "phantom" in his demonstrations. William Hunter, by reason of his anatomical studies of pregnancy, had been appointed physician-*accoucheur* at the Middlesex Hospital in 1748, and many new lying-in hospitals, including the Queen Charlotte Hospital, were opened in London about this time. But though Akenside had written a treatise on the origin and growth of the human fœtus and lived in the very sunrise of medical midwifery, there is nothing to suggest that he ever assumed the rôle of an *accoucheur* or sought to apply the forceps invented by his colleagues. He did, however, share one thing in common with Dr. John Burton, the noted obstetrician; he was pilloried in a novel. For what reason Tobias Smollett, himself a doctor, found Akenside insufferable is not clear; but what is said to be a recognizable caricature of the poet occurs in "Peregrine Pickle", in the character of the doctor who invites his guests to a gargantuan banquet, babbles about politics, recites his own poems and lays the palm of flattery on his own conceits. Better known, perhaps, is Dr. Slop, an uncouth and vulgar physician, appearing as a Papist in "Tristram Shandy", and said to be a vilification of Dr. Burton. Akenside bore the novelist's contumely bravely and in silence, for though he may have replied in verse more vitriolic than that in the "Epistle to Curio", he preferred the dignity of disdain to the satisfaction of sarcasm, and strove to find in the acquisition of academic honours the more permanent and salutary remedy for his outraged feelings.

Footsteps to Fame.

The eighteenth century physician was essentially an intellectual, a man steeped in classical learning and acquainted with contemporary literature and politics, able to participate in debate with the wits and writers of his day, to argue and acclaim and dispute with those in other branches of learning, a patron of the fine arts, often a collector, a dilettante or a pamphleteer. Some, like Sir Samuel Garth and Dr. Arbuthnot, are remembered chiefly for their literary productions, their wit and urbanity; they shone in the same galaxy with Pope, Swift and Gay. They met in the celebrated coffee houses to spice their discourse with clever quips or to make the rafters ring with their rhetoric. Likewise Akenside in the middle of the eighteenth century found his spiritual home in the coffee house, which was the place of intellectual joust, the forum of ingenious tattle. His contemporaries were Burke and Goldsmith and Reynolds. He sat at table with actors and politicians, clergymen and publishers; he shared in their drollery and enlarged their learning. Many of his listeners were captivated by the airy splendour of his speech, while some were repelled or angered by his dogmatism and contentiousness. His political sentiments alienated him from Dr. Johnson, but brought him into intimacy with Charles Townshend, to whom he dedicated some odes. But neither his eagerness to shine in company nor his love of argument hindered his academic studies or stood in the way of scholastic renown. In 1754 he was appointed a Fellow of the College of Physicians and in the following year he read the Galstonian Lectures in Anatomy before that body.

Fortune continued to smile upon his labours, and in 1756 Akenside was appointed Croonian Lecturer to the College, a signal honour for so young a Fellow in an age of notable physicians. It is possible, however, that in choosing as a subject for these lectures, "The History of the Revival of Letters", Akenside may have blundered. His detractors say the lectures were a failure and that he was forced to discontinue them after the delivery of the third. On the other hand, three was the customary number given, and Akenside may have intended to follow this convention. Whatever the verdict of his auditors, his unconventional choice of subject shows the temper of his mind and the location of his main interests.

Akenside was a strictly ethical physician though he lived in an age when quackery was rampant and the most blatant irregularities flourished. His contemporary, Chevalier John Taylor, was noted for his sprightliness and pretended latinity in addition to his ostentatious quackery. Robert James became famous for his "fever powders", which were praised by Horace Walpole and bought as readily by the great as by the gullible. While Akenside was lecturing to the Royal College of Physicians and John Hunter was conducting his anatomy classes in Windmill Street, "Spot" Ward, the king of quacks, was making a fortune with his antimony pills and curing headaches with camphor liniment; and Mrs. Mapp was practising as the celebrated bone-setter of Epsom. And about this time Parliament paid Joanna Stevens £5,000 for her secret remedy for the stone. The quacks depended upon advertisement, and restraint placed no limit upon the extravagance of their claims. They flourished unhampered at a time when ignorance gave ample rein to exploitation, and the practice of medicine was largely compounded of myth and make-believe.

In his thirty-eighth year Akenside, now among the most dignified and learned of his calling, was appointed physician to St. Thomas's Hospital and called upon to deliver the Harveian Oration before the Royal College of Physicians. He later became an honorary physician to Christ's Hospital and walked through the sick wards with the accustomed pomp. He is pictured by Isaac Lettsom, then a surgical dresser at St. Thomas's, as a "stiff-limbed, starched personage, with a lame foot, a pale strumous face, a long sword and a large white wig". For all his learning he was no clinician, and he treated his hospital patients callously, being abrupt in his manner and harsh in his speech. To him medicine was a branch of learning; he had not the instinct of the healer. There was little personal magnetism in his make-up. He was respected but not loved. He gave his opinions pompously. His teaching was didactic. His ideas flowed from a well-stored mind. His actions were inhibited by his temperament. Those who sought his help received a token of wisdom, seldom a page torn from the crimson chap-book of the heart.

Akenside's Harveian oration was published in the year following its delivery; and in the succeeding year he followed his friend Dyson into the Tory ranks and was appointed physician to the Queen. History supplies no reason for this minor act of political apostasy, and one is left with the supposition that ambition was the main motive, ambition that, as Akenside himself had written,

> climbs
> With sliding feet and hands impure, to grasp
> Those solemn toys which glitter in his view
> On Fortune's rugged steep.

Ambition, nevertheless, was a sharp spur to the man who now became physician to the Queen and who in so short a time had raised himself to a position of eminence in the medical profession. The butcher's son had reached the apogee of his career. He was forty years of age. The customary prizes of his profession had fallen into his lap. He had a secured income and a growing practice. He was flattered and sought after, and by one of his admirers was presented with Milton's bed. A condition of his acceptance of this domestic article is said to have been that he should write an ode in praise of its first owner. But inspiration never came, and the condition remained unfulfilled. How often the spirit of the blind bard appeared in the dreams of him who now slept in the bed, but who had so early exchanged the muse's gifts for the physician's prestige, is not recounted. His pen was busy; but the mind that moved it, clogged with mundane thoughts, was insensitive to the hushed overtones of Lycidas, and the tongue, choked with worldly utterance, could no longer sing.

It is not known which of the Queen's ailments Akenside was called upon to treat, nor how far success may have crowned his therapeutic ministrations. It must be assumed that his treatment embraced the medical empiricisms of his day, and that he rang the changes with salves and febrifuges, pills and blisters, to the accompaniment of much high-flown talk and earnest speculation. He was at least the equal of any of his local contemporaries, and though he may have brought little comfort to his Queen, he was not wanting in diligence. He continued to pursue his medical studies, and in 1763 he read a paper before the Royal Society on "The Effects of a Blow on the Heart". This was published in the Society's *Philosophical Transactions* and it served further to enhance a reputation for medical erudition which was to reach its zenith the following year with publication of a treatise on "The Dysentery", memorable at least for the purity of its Latin syntax. While Akenside was preparing these papers, Morgagni published in Padua his great work "*De ledibus et causis morborum per anatomem indagatis*", thus laying the foundation of that edifice of scientific pathology, to the building of which Akenside was unable to contribute, even though in 1767 he read before the Royal College of Physicians papers on "Cancers and Asthmas" and "White Swelling of the Joints". He did, however, perform a useful service, for which in 1766 he earned the thanks of the Royal College of Physicians, in bringing out an edition of the works of William Harvey, to which he added a preface.

Time's Revenge.

It was astutely observed by Crabbe that, among other things laudable and unworthy,

> Young physicians write
> To set their merit in the fairest light.

This has been urged against Akenside by Dr. Johnson, who believed that he went out of his way to seek recognition and curry favour with his influential colleagues. There may be some truth in the accusation, for having won an early reputation as a poet, Akenside may have again relied upon his pen to bring him renown which he found it difficult to achieve at the bedside. He wrote well, but left no permanent or outstanding contribution to medicine. His fame never grew beyond the bounds of local success. His interest in medicine was always more literary than clinical. Like Karshish, he was "a picker-up of learning's crumbs". His medical writings reflect a well-stocked, studious mind, capable of digesting and elaborating the theories of others, but not of blazing new pathways through the unexplored regions of pathology. In some ways he was an ornament to the profession he served. He was a scholar, and having been a poet, possessed a cultivated taste. He filled high offices with distinction. He was never insensitive to the ideals of his calling; he upheld its traditions and strove to advance the medical teaching of his day. By studious application he won a measure of parochial repute, and for some years he enjoyed a prestige proper to a man of his culture and character. But he never shone with that brilliance which betokens immortality.

He left no body of ideas from which future generations might draw sustenance—no live coals of thought that might kindle the imaginations of future physicians. When the erudition of his articles had been recognized and his style applauded, there was little left to treasure. His medical publications contained no subtle preservative against the ravages of time. They lie undiscovered in the files of dusty magazines and undisturbed in the mouldy volumes of philosophical transactions; and no trumpet blast has the power to resurrect them.

Mark Akenside never married. The pleasures of the nuptial couch were unknown to him whose early life was dedicated so completely to "The Pleasures of the Imagination". Biography reveals no reason for his celibacy, though gossip hints at the disappointment of an early love affair. Freudians may find in his Œdipus complex the roots of his adult misogamy; but his published works give no clue to the direction of his erotic impulses. Quite early in life he saw love with arrows blunted and unbraced bow, and pridefully chose to "lose the lover in the man". Thereafter, with valiant resolution he kept his heart in his breast—never wore it on his sleeve. He concealed his secret susceptibilities and bridled his passions with deliberate intent. He published no ventures in venery. He wrote no "Journal to Stella". The sexual struggles of his adolescence were never made the subject of a sonnet. Whether his love for his own sex ever passed beyond the Platonic, with Jeremiah Dyson, Charles Townshend or some nameless catamite of the coffee-house, or whether, like many another, he visited some surreptitious mistress in the forgotten alleys of eighteenth century London, remains unknown. If ever the breath of scandal arose round his name it has been blown away by the winds of time, and what may once have been a grisly skeleton in the domestic cupboard is now fallen into dust like that of its owner in the churchyard of Saint James.

Akenside neither loved nor was loved by his contemporaries. He was quicker at making enemies than friends. He seems to have had little understanding of human nature and little patience for the foibles and frailties of mankind. He lacked humour. His manner was unpleasing—proud, but without charm. In his attitude to patients he showed a hostile aloofness. His outlook on life was cramped and disaffected. His mind was never touched by the sufferings of others, and the basic qualities of his personality were a stiff formality and a wooden dogmatism. He was essentially a lonely man, untouched by the geniality of those around him, yet generous in his praise of his brother poets. With all his learning and medical knowledge, it is doubtful whether he ever lightened the load of a suffering patient or rekindled the fire of hope in those who were sorely stricken with disease. He was ethical to the end:

> No doubtful maid did at his chamber call,
> So much as to consult her urinal;
> No lord to treat a clap, would him endure,
> Nor lady an abortion to procure.

Akenside's name is absent from the illustrious list of doctors who, in the eighteenth century, gave their services in the cause of public health. Mead, Pringle and Lind made valuable contributions to sanitary science; but Akenside was silent about the insanitary conditions in which pestilence flourished and epidemics spread through the poorer classes. The appalling conditions which existed in gaols and mental hospitals never troubled him. He had no social conscience, and if he ever glimpsed visions of a better world they were in terms of poetry rather than in those of preventive medicine.

The British Museum was opened and Hargreaves had invented his spinning jenny before Akenside died of a putrid fever in 1770. As his remains were trundled over the cobblestones from Burlington Street to Saint James, Arkwright was building the first spinning-mill in England, and life moved forward with an ever-quickening tempo beyond the city of London, to the grim factory towns in the north. History turned a fresh page with his passing; but on that page, thronged with its Hogarthian figures—elegant, shabby, rich and poor, with their jewelled snuff-boxes and embroidered stomachers, their French wigs and brilliant buttons, their cheese-cake and ale—one may still espy Mark Akenside limping through St. Thomas's Hospital or lecturing to the Royal College of Physicians. Other figures have overshadowed him somewhat; Fielding, Priestley, Goldsmith, Garrick and a dozen others have reduced his stature to Lilliputian proportions—so small, indeed, has he become with the passage of time that his figure is clear only to the curious. For the many who but seldom turn back the pages of history, Akenside is little more than a name. The physician is forgotten and only the minor poet remains.

A PRELIMINARY NOTE ON THE RELATIONSHIP OF THE BLOOD PLATELETS TO THE MECHANISM OF HÆMOSTASIS.[1]

By G. REID, M.D.,

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TOWARDS the end of last century it was recognized that blood serum or defibrinated blood is vasoconstrictor in action, and in the second decade of this century, a few observers, in particular Janeway, Richardson and Park,[(1)] showed that the vasoconstricting substance responsible for this action is derived from the blood platelets. More recently in the course of an investigation of certain pharmacological properties of human serum, this property of the blood platelets was confirmed by Reid and Bick.[(2)(3)] It was shown also that the vasoconstrictor substance, which is heat-stable and diffusible through "Cellophane" membranes, is liberated by the breaking down of the platelets and does not depend on the clotting process as such. For convenience it is proposed to call this substance "thrombocytin".

Briefly, hæmostasis depends on (i) the formation of an adequate clot and (ii) constriction of the bleeding vessel. Apart from their relationship to the coagulation process, the possibility that the platelets liberate a vasoconstrictor hormone, which acts locally at the site of their breakdown and causes constriction of bleeding vessels, has never received adequate attention. Stewart and Zucker[(3)] in 1913 stated that the platelets contribute to hæmostasis in this manner; but their views seem to have been unrecognized or forgotten.

Despite the fact, as Macfarlane[(4)] emphasizes, that patients with low platelet counts may have normal bleeding times and those with normal platelet counts may have prolonged bleeding times, it is well recognized that normal clotting time and prolonged bleeding are commonly associated with a considerable reduction in the number of platelets in the blood stream. It was thought possible, therefore, that the prolongation of the bleeding time of patients affected with essential thrombocytopenic purpura might

[1] This work was carried out with the aid of a grant from the National Health and Medical Research Council.

be attributable in part to the relative lack of local vasoconstriction resulting from a diminution in the number of platelets available at the site of injury.

In order to examine this possibility the following observations have been made.

1. The vasoconstrictor activity of the blood serum (prepared by allowing whole blood to clot) from patients with thrombocytopenic purpura was compared with that of reconstituted dried serum kept as a standard, the test object being the isolated spiral strip of ox carotid artery.[2]

2. The occasional discovery of patients with normal numbers of platelets who have prolonged bleeding times for which there is no obvious cause has raised the possibility of a qualitative defect in the platelets. In order to test whether such a hypothetical defect was reflected in the inability of the platelets to liberate the vasoconstrictor substance, the serum from a patient with athrombocytopenic purpura (hereditary thrombasthenia—Glanzmann, 1918) was examined.

3. "Thrombocytin" causes contraction of the smooth muscle of the arterioles and the larger blood vessels;[3] but it has not been determined whether it also constricts the capillaries. To determine this, intradermal injections of active serum, of serum ultrafiltrates and of platelet-extracts in normal saline solution were given into the skin of normal human subjects. The results were observed with the naked eye.

Bleeding times were determined by Duke's method (normal, two to five minutes) and coagulation times by Lee and White's method (normal, six to fourteen minutes). Platelet extracts were prepared as described in a previous paper.[4]

Results and Discussion.

A summary of the findings in five cases are set out in Table I. Three patients with essential thrombocytopenic purpura, who had prolonged bleeding times and low platelet counts, yielded serum which, when compared with the standard, was only feebly vasoconstrictor. The fourth patient, who was suffering from hypoplastic anæmia, and whose platelet counts ranged from 2,700 to 26,000 per cubic millimetre, yielded, as would be expected, serum of only slight vasoconstrictor activity. This patient was singularly free from purpuric symptoms, and the bleeding time was almost within normal limits. The patient with athrombocytopenic purpura, whose bleeding time varied from ten to over thirty minutes, yielded serum on three separate occasions whose activity was much greater than the standard.

Figure I illustrates the inactivity of the serum of the patient, E.H., a female, aged nine years, who was admitted to the Children's Hospital, Melbourne, on May 12, 1941; her history was that one week after the onset of scarlet fever on April 22, 1941, she developed a petechial rash, and suffered from recurrent epistaxis, hæmorrhage from the gums and bruising. At that time the bleeding time was greater than ten minutes, the coagulation time was normal and the clot retraction was almost nil after twenty-four hours; the capillary resistance test gave a positive result, and the platelets count numbered 20,000 per cubic millimetre. On several occasions up to February 9, 1942, the bleeding time was greater than ten minutes, the number of platelets varied from 2,000 to 20,000 per cubic millimetre and the petechial rashes and bruising continued. The child was regarded as suffering from thrombocytopenic purpura. The serum, which failed in a dose of one cubic centimetre to produce a response in the ox carotid strip (see Figure I), was obtained on August 5, 1941, when the number of platelets was 2,000 per cubic millimetre. Splenectomy was performed on February 18, 1942. On May 4 the records state that the child was much better, but some bruising was still present. The platelets then numbered 125,000 per cubic millimetre. On June 6 the bleeding time was five minutes; at that time her serum had 0·6 of the activity of the standard.

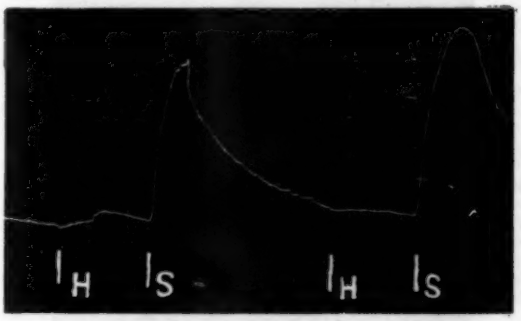

FIGURE I.

Responses of a strip of ox carotid artery to one cubic centimetre doses of the serum of patient E.H. at H, and to one cubic centimetre doses of standard serum at S.

Figure II shows the comparison on October 8, 1941, of the activity of the standard serum and that of the patient M.B., who was suffering from athrombocytopenic purpura (hereditary thrombasthenia).

This patient, a female, aged twenty years, was admitted to the Royal Melbourne Hospital on August 19, 1940, with right-sided abdominal pain present for the previous three days. Operation on the same date revealed a hæmoperitoneum arising from a hæmorrhaging right ovary. Right oophorectomy was performed. On August 20 her bleeding time was prolonged (twelve minutes), her coagulation time was normal (four minutes fifteen seconds), the capillary resistance test produced negative results, and the platelets numbered 111,000 per cubic millimetre. Apart from her recent history, the only hæmorrhagic symptoms obtained were that her menstrual bleeding was usually profuse and that she suffered from recurrent epistaxis, once lasting for nine hours. On October 3, 1941, she was

TABLE I.

Patient's Name and Sex.	Age. (Years.)	Disease.	Date.	Bleeding Time. (Minutes.)	Number of Platelets per Cubic Millimetre.	Vasoconstrictor Activity as Ratio of Standard.
E.H. (F.)	9	Thrombocytopenic purpura.	5.5.41	Greater than 10.	20,000	
			5.8.41	Greater than 10.	2,000	Almost nil.
			15.12.41	Greater than 15.	—	
		(Splenectomy, 18.2.42).	9.2.42	—	10,000	
			4.5.42	—	125,000	
			6.6.42	5	—	0·6
A.B. (M.)	46	Thrombocytopenic purpura.	27.3.40	Greater than 21	2,130	
			15.10.41	19	Less than 20,000	Less than 0·25
O.G. (F.)	46	Thrombocytopenic purpura.	2.12.41	Greater than 20.	18,000	0·125
J.M. (F.)	42	Hypoplastic anæmia.	19.5.39	—	26,000	
			12.5.41	—	15,000	
			5.6.41	6	16,500	0·25
			12.6.41	—	2,700	
M.B. (F.)	20	Athrombocytopenic purpura.	20.8.40	12	111,000	
			26.9.40	17	260,000	
		(Hereditary thrombasthenia, Glanzmann.)	20.3.41	37	328,650	
			8.5.41	10	319,000	
			3.10.41	Greater than 10.	—	Greater than 1·5
			8.10.41	10	428,000	2·0
			8.1.42	—	—	2·0

readmitted to hospital with another attack of lower abdominal pain with rigidity and tenderness. On September 26, 1940, March 20, 1941, May 8, 1941, and October 8, 1941, the platelets numbered 260,000, 328,000, 319,000 and 428,000 per cubic millimetre respectively, and her bleeding time ranged from ten minutes on October 8, 1941, to thirty-seven minutes on March 20, 1941. The clot retraction was always normal. Samples of serum were obtained on October 3, 1941, October 10, 1941, and January 8, 1942, and on each occasion the activity was more than 1·5 times that of the standard.

FIGURE II.

Responses of a strip of ox carotid artery to doses of serum from patient M.B. at B and of standard serum at S. The figures denote cubic centimetres.

The results so far give the following indications.

1. Patients with a low platelet count yield relatively inactive serum. When, after splenectomy, the platelet count of the first patient rose, the activity of her serum rose also.

2. Except in cases of essential thrombocytopenic purpura, diminished vasoconstrictor activity does not always run parallel with prolongation of the bleeding time, as is illustrated by the patient J.M.

3. A diminished amount of "thrombocytin" liberated by the platelets cannot be the explanation of the prolongation of the bleeding time of the patient suffering from athrombocytopenic purpura. If there is, therefore, any qualitative change in the platelets, as has sometimes been postulated, it is not reflected in impaired ability to liberate a vasoconstrictor substance.

There remains the possibility, at least so far as essential thrombocytopenic purpura is concerned, that that lack of local vasoconstrictor activity may contribute to the prolongation of bleeding time. Now, in order that the locally liberated "thrombocytin" may be effective in producing hæmostasis from capillary bleeding, it is necessary that it should cause constriction of the damaged capillaries. There is, however, no evidence that the vasoconstrictor substance derived from the platelets has any action on the capillaries; nor have previous experiments[3] indicated the presence of a vasodilator substance in platelet extracts which could have masked the effect of a vasoconstrictor substance. The intradermal injection of active serum or ultrafiltrates into twelve normal subjects did not produce blanching. It was thought possible, however, that platelet breakdown might liberate locally at the injured capillaries very much higher concentrations of "thrombocytin" than obtain in serum. Nevertheless, a platelet extract in normal saline solution concentrated to represent over 100 times its volume of serum was also found to be inactive. A dose of 0·05 cubic centimetre of such an extract produced a response in a strip of ox carotid much greater than that produced with the same preparation by 0·2 cubic centimetre of a 1:100,000 solution of adrenaline. This platelet extract in a dose of 0·02 cubic centimetre produced no blanching in my own skin, whereas the same dose of adrenaline produced an area of blanching one centimetre in diameter.

In Macfarlane's recent review the importance of the capillaries themselves was emphasized, and he described distorted capillary loops in patients suffering from various forms of purpura. Indeed, it is difficult to explain spontaneous hæmorrhages or a positive result to capillary resistance tests in terms of platelet lack alone. This paper, however, is not concerned with a discussion of the nature of purpura; it examines one way in which platelet lack can contribute to the prolongation of bleeding. The fact that "thrombocytin" appears to play no part in capillary hæmostasis should not detract from the part which it almost certainly plays in the arrest of hæmorrhage from larger vessels. Best and Taylor[6] believe that the platelets constitute the first defence against the loss of blood from larger vessels, and that by inducing retraction of the clot they narrow the opening in the vessel. This paper, however, brings to notice the fact that there is a much more rapid way in which the platelets can cause narrowing of the lumen of an artery—namely, by the liberation, within a minute or so of injury, of a locally acting vasoconstrictor agent.

Summary.

By liberating a vasoconstrictor substance when they break down, the blood platelets play a part in hæmostasis from arterioles and larger vessels. The name "thrombocytin" has been suggested for this substance.

Patients suffering from thrombocytopenic purpura, with prolonged bleeding times and a reduced number of platelets, yield serum possessing only feeble vasoconstrictor activity; but there is no evidence that the vasoconstrictor substance derived from the platelets causes capillary constriction.

So far as the liberation of "thrombocytin" is concerned, the blood platelets of a patient suffering from athrombocytopenic purpura (hereditary thrombasthenia) did not differ from normal platelets.

Acknowledgements.

I am indebted to the members of the honorary medical staff of the Royal Melbourne Hospital and of the Children's Hospital, Melbourne, for permission to see their patients, and to Dr. Hilda Gardner, who as clinical pathologist to the Royal Melbourne Hospital performed most of the platelet counts.

References.

(1) T. C. Janeway, H. B. Richardson and A. Park: "Blood Serum as a Vasoconstrictor", *Archives of Internal Medicine*, Volume XXI, 1918, page 565.

(2) G. Reid and M. Bick: "Pharmacologically Active Substances in Serum", *The Australian Journal of Experimental Biology and Medical Science*, Volume XX, 1942, page 33.

(3) G. Reid and M. Bick: "Some Pharmacological Properties of Serum with Special Reference to its Use as a Blood Substitute", THE MEDICAL JOURNAL OF AUSTRALIA, Volume I, February 28, 1942, page 245.

(4) R. G. Macfarlane: "Critical Review: Mechanism of Hæmostasis", *The Quarterly Journal of Medicine*, Volume X, 1941, page 1.

(5) G. N. Stewart and T. F. Zucker: "A Comparison of the Action of Plasma and Serum on Certain Objects Used in Biological Tests for Epinephrin", *The Journal of Experimental Medicine*, Volume XVII, 1913, page 152.

(6) C. H. Best and N. B. Taylor: "The Physiological Basis of Medical Practice", Second Edition, 1939, page 122.

NATIONALIZATION OF MEDICINE.

By S. V. SEWELL, M.A., F.R.C.P.,
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BEFORE beginning to discuss the subject matter of my address to you this afternoon, I should like to make it clear that the opinions I am about to express are not the views of the Royal Australasian College of Physicians or of the British Medical Association, but entirely my own.

It is of interest to note that this problem of the nationalization of medicine is being considered in every part of the English-speaking world at the present time.

The subject of nationalization of medicine in its broadest aspects as it affects the general public and the medical profession is far too wide to compass in a short address. Accordingly I propose, after setting out the problem in general terms, to limit my remarks to the manner in which the service of members of the medical profession can best further national interests. It is germane to the discussion this afternoon to consider what are the duties and responsibilities of the doctor to his patients and to the State. In doing so, I propose to approach the subject from the historical point of view. Such a review can be but sketchy in the limited time which is available. For conciseness, it may be stated that the doctor's main responsibilities are: (i) to diagnose and treat disease, (ii) to employ all known measures to prevent disease, (iii) to do all in his power to maintain the positive health of those under his care. These three important functions were well performed 500 years before Christ by the Greek school, and indeed, we all recognize Hippocrates as the father of medicine. Under Hippocrates, the scientific method of recording exactly the symptoms of disease and the course taken by various diseases led to the accumulation of a large amount of accurate knowledge, and many of the descriptions written at the time might well be transferred to a modern text-book; again, the code of ethical conduct for doctors laid down by Hippocrates and the oath taken by doctors leave nothing to be desired, and they will stand for all time. However, it was in their attitude towards the maintenance of positive health that the Greeks set a standard which has not been equalled since in any country. They taught that a beautiful, healthy body free from rolls of useless and unsightly fat was the only fitting temple for the individual to inhabit. To this end, healthy outdoor exercise and games were recommended and abstemious habits with regard to both food and drink were inculcated.

Owing to the destruction of Greek civilization as the result of the invasion of Greece by Hun hordes, Greek medicine and its high standard would have been entirely lost, but for the escape that some physicians made to Egypt and Rome, and from these sources some of its teachings have been preserved for us. However, in these countries, medicine once more became debased, surrounded by superstition and magic and losing the scientific spirit in the hands of the priesthood. Right through the Middle Ages this scientific spirit was missing, as unfortunately the Christian Church, contrary to any teaching of Christ himself, took the view that disease and epidemics were a punishment for sin, and as such should not be interfered with.

Even one hundred years ago the causes of none of the infectious diseases had been discovered, nor had the uselessness of most of the drugs used in the symptomatic treatment of disease been established. However, the work of Pasteur in 1870, who proved that air-borne organisms were responsible for the destruction of almost priceless vintages of French wines, led to the rapid series of discoveries of the various germs and viruses responsible for most of the infectious diseases. This same discovery of the germ factor in disease led to the development of antiseptic and a little later of aseptic surgery, and so made the wonders of modern surgical technique safe and possible. These discoveries led also to the scientific production of life-saving antidotes for the treatment of diphtheria, tetanus *et cetera*, and to the introduction of vaccination against many diseases which had decimated our population. Similarly, the technique of control experiments carried out by the cooperation of pharmacologists and physicians has meant the simplification of drug treatment of disease, so that now only a few drugs, and those well proved, are in use in regular practice. Within the last seven years, the sulphonamides—new and powerful weapons against many infections—have been produced, and common diseases such as acute pneumonia and cerebro-spinal meningitis, which formerly had death rates of 30% to 50%, have now under the new treatment death rates of well under 10%. Again, the vast amount of research work recently carried out in relation to deficiency diseases has added greatly to our knowledge of glandular deficiencies and overaction, as well as to that of the vital importance of the vitamins present in uncooked foodstuffs. This new knowledge has led to important modifications in the rations of our fighting forces, which have done much to maintain their efficiency in areas where fresh food supply is a difficult problem. In the past twenty years, the application of these results of physiological, chemical, pharmacological and clinical research to the treatment of disease has led to almost revolutionary changes in the medical treatment of heart disease, gastric and intestinal conditions, deficiency diseases and disorders due to acute infections and mental changes. The past twenty years have seen so much change in our knowledge that, had a fully trained young physician left this world at that time and returned today, he would find himself confronted with such a vast field of new knowledge that a long course of study and practical work would be necessary before he could take his place adequately with present-day practising physicians. The members of the medical profession throughout the English-speaking world and in most European countries have kept themselves abreast of the ever-increasing knowledge and its application to treatment by individual reading and by medical scientific meetings; these are eagerly attended, in spite of war conditions and the vastly increased work of civilian doctors, as the result of the fact that so many of their fellow practitioners are serving with the forces. We have in the English-speaking world evolved entirely under the voluntary system a medical service and trained medical men of whom we may well be proud. I have had the opportunity, from time to time, of comparing our younger graduates with those in England, America and Germany, and I can say definitely that the product of Australasian medical schools compares favourably with that of the medical schools in other parts of the world that I have mentioned.

Reverting again to our original theme of the doctor's three main responsibilities, let us examine briefly how far we are succeeding in fulfilling these responsibilities in this country.

The Diagnosis and Treatment of Disease.

The investigation of many obscure cases of disease requires much team-work and the cooperation of physician, pathologist, bio-chemist, radiologist, and above all, of the general practitioner, who, if he is worth his salt, is able to provide a knowledge of the mental and physical environmental conditions of the patients, which are most important factors in the evolution of not only functional but also actual organic disease.

Such team-work is readily available to patients, both rich and poor, within reasonable distance of our capital cities. Those in comfortable circumstances can have their problems investigated and treated in this way without difficulty. The same applies to our sick poor, who receive the best possible diagnostic and therapeutic management under team-work conditions in our teaching hospitals. However, these modern methods of investigation, which are necessary if in doubtful cases a diagnosis is to be made early and therefore at a stage when cure is possible, impose a serious tax upon the man with a family who has an income of £400 to £600 per year. In such cases, the complete investigation of one or more illnesses in the family in the year followed by a major operation in a private hospital costs a sum which may have a crippling effect upon the family resources. Should the breadwinner himself be the victim of such an illness, particularly if he is advancing in years, the anxiety he feels about his financial position present and future often seriously militates against what should be a reasonably rapid convalescence. In such cases the doctor in my experience seldom if ever refuses to reduce his fees; but nevertheless, the large hospital and other expenses impose a considerable tax. Such difficulties deter patients from consulting a doctor at the earliest manifestations of ill-health, and in this way many patients with tuberculosis or cancer fail to present themselves at a stage when they are highly curable and before, in the case of tuberculosis, they have communicated their disease to other members of the household and of the general public. Granted that the people of Australia dwelling in or near our capital cities are well catered for medically, can we say the same for dwellers in the country at considerable distances from the capital cities? We have a well trained and competent general practitioner service in our country districts; but such

men, wonderfully versatile as they are, cannot possibly have or be expected to have the specialist knowledge necessary to elucidate obscure diagnostic problems. Therefore, in order that the country dweller may have equal opportunities for medical treatment with the town dweller, it will be necessary to have clinical investigation centres with fully trained consultants—radiologist, pathologist, bio-chemist, physician, surgeon and obstetrician—whose help will be available to the patients at the request of the general practitioner in suitable district hospitals throughout Australia. Such investigation centres could not possibly be self-supporting except in reasonably densely populated areas; accordingly, either the payment of reasonable remuneration and expenses will have to be met by government subsidy, or the personnel will have to be full-time salaried officers. The health of the citizen is of such paramount importance to the State that these investigation clinics must necessarily be provided in country districts at an early date. Only by such a measure will the early diagnosis and treatment of disease be attained throughout the country districts of Australia. In some towns of moderate size attempts are being made by local medical practitioners to form cooperative groups for the investigation and treatment of their patients. Each man, while still continuing general practice, makes himself proficient in a particular branch of work and is useful to his fellow practitioners in the more difficult cases. This cooperative method has helped greatly in a number of centres, but it must lead to some increased cost to the patients if all the necessary modern methods of investigation are to be provided and fully trained opinion is to be available. This plan might well be extended with some form of government subsidy to help poorer patients. The more sparsely settled areas, where no medical man can earn a reasonable income, must be provided with a government subsidized or salaried service, since in these areas, apart from ordinary illness, there is not a little indifferent health as the result of deficiency conditions mainly resulting from a poorly balanced diet and lack of necessary vitamins. In such areas, the expectant mother bears a weight of anxiety and apprehension resulting from the lack of proper medical guidance.

The Prevention of Disease.

The attention of the medical profession and teachers of medicine has been so occupied with the application of newer knowledge to the diagnosis and treatment of disease that it has failed perhaps to lay sufficient stress in the teaching of medical students on the problems of disease prevention. We already have enough knowledge to abolish, by protective inoculation, the terrors of diphtheria, scarlet fever and whooping cough. Such inoculation should be compulsory, since an aftermath of kidney and lung troubles may cause invalidity and shorten the lives of many patients who have suffered from these infections, quite apart from the not infrequent deaths from these conditions which still occur. We also have sufficient knowledge to abolish from our midst tuberculosis with its high mortality and morbidity rates. Recent X-ray examination of the lungs of all our troops and of the personnel of the women's auxiliary forces has shown an unexpected and alarming amount of undiagnosed early and even well-established but unsuspected tuberculous lung disease among these apparently healthy young people of military age. This stresses the fact that a survey of the whole population is necessary in this connexion if the foci of infection are to be located. Such sources of infection should be immediately segregated and put under treatment till they are no longer discharging tubercle bacilli. Unlike most other germs, tubercle bacilli can live in dust outside the body for many years, and so old houses infected with tubercle bacilli are a real menace, since ordinary fumigation methods are of little avail. The obvious remedy is to prevent house infection by segregating patients for treatment at an early stage of their infection, while they are highly curable. The prevention of poor physical development and ill-health due to deficiency, mainly of vitamins, must be a matter of cooperation between education authorities and the doctors. To this end children must be taught the simple facts of physiology and dietetics, and provided with properly selected and prepared food to provide a well-balanced diet—food with its vitamin content not destroyed by being wrongly cooked or over-cooked. Time does not permit of more than this brief mention of prevention of known diseases.

The cure and much later the prevention of disease have had wide medical and public attention; but there is a third and much neglected function of the doctor that has received as yet but scant attention, and that is the maintenance of positive good health. This is a problem requiring the combined attention of the sociologist, the educationist and the doctor. The doctor must insist on good living conditions and a well-balanced diet with an adequate supply of vitamins, and on plenty of open air, games and physical exercises with a sufficient amount of leisure for hobby work; the sociologist must see to the abolition of slum conditions and to the adequate distribution of work and opportunity, with shorter hours for the workers; while the educationist must modify his plans and educate people, not only for their life work, but for their leisure time also. The failure to point out and develop the natural bents of the children for hobbies to fill their spare time, whether the hobby is gardening, carpentering, sketching, music or what not, unfits them for shorter hours of work and more leisure time. Therefore, they seek pleasure in preference to real happiness by watching other people play games, or by going to the races or the "pubs" to lay up for themselves a storehouse of discontent and for their dependants future ill-health and unhappiness. We must do our best to get back to the standards of positive health of the ancient Greeks and realize that true happiness and exuberance of spirits come only to the healthy body, which is the only fit habitation for the individual.

Suggestions for a Medical Service.

Since most of the work concerned with the maintenance of positive health and the prevention of disease will devolve upon that keystone and most unselfish member of the medical profession, the general practitioner, who is the intimate guide, philosopher and friend of his patients and their children, it is pertinent to ask if it is a reasonable thing to expect him to carry this extra and ever-increasing burden. It must be remembered that the general practitioner is on duty for twenty-four hours each day, and in my experience he is frequently hard at work for from twelve to sixteen hours a day, carrying on necessary work when he is too tired to be really efficient. This is particularly the case in industrial areas, where the practitioner has a large contract practice in addition to his private patients. Such a practitioner could not possibly bear the strain of educational and propaganda work in connexion with prevention of disease, and the maintenance of positive health; he finds it difficult enough to diagnose the illness of the subject who is ill and treat him, as well as treating his disease. The diagnosis and treatment of the patient who is ill are often more difficult and much more time-consuming than is the treatment of the disease from which he is suffering. Again, the general practitioner has to attend scientific meetings and "refresher" courses to keep his knowledge up to date. These things are usually done at the expense of any leisure or annual holiday, which makes men old before their time. To such men the greatest reward is not the economic one, but the gratitude and trust of their patients. If, then, we are to progress in the field of preventive medicine and in the maintenance of positive physical health, we must seek other methods rather than place further burdens on already impossibly overtaxed shoulders. To this end, we must consider either a government controlled *per capita* payment or fee for service system or alternatively a full-time salaried medical service, with some part-time officers and other doctors who would still prefer to carry on private practice, either as general practitioners or as consultants. I believe that any *per capita* or fee for service system is bound to be a failure, unless the *per capita* fee is large enough to allow the doctor to work quietly without a sense of hurry and bustle, because only in this way will he be able to give of his best. If any government wants a cheap medical service and offers a *per capita* payment so small that the doctor will have to see large numbers of patients each day to earn a reasonable income, it will inevitably obtain a nasty service; under such a service medical men might, by examining large numbers of patients inadequately, earn considerable incomes; but our profession would be debased. The only *per capita* system which could possibly be welcomed by thinking and conscientious members of our profession, and fortunately they are the vast majority, would be one with time for self-improvement and some leisure, with high fees and strict limitation of numbers of patients. Only in such a service could any improvements be made on present conditions of practice, or present standards be maintained. A fee for service system with a small guarantee fee per visit is open to all the same objections and has only two advantages: (i) that it guarantees that sick people will be attended when they are ill, and (ii) that the doctor in attendance will receive payment. I see many advantages in a full-time salaried medical service running concurrently with private medical practice, provided always that reasonable freedom of choice of doctor is preserved. If such a service were reasonably

good from the patient's point of view, and gave full time and opportunity for the doctor to do his best work without being worried by being asked to do more than he was capable of doing well, without his having to do a lot of clerical work, without lay domination, and with emoluments comparable with those of the County Court, Supreme Court and Federal High Court Judges, I feel that there would be little opposition to its establishment by the Commonwealth Government throughout Australia. If there is to be a government medical service, the scheme I would suggest is that a federal medical commission should be established, entirely free from political control, responsible only to Parliament. This is not the time or place to suggest details of the composition of such a federal medical commission; but if it is to be a success, it must have the full support of the medical profession and the confidence of the general public. To this end, it should be comprised mainly of practising members of our profession, with a chief commissioner who has been an outstanding practitioner with a known flair for organization. Since curative medicine still plays by far the biggest part in the work of our profession and must do so for many a day, it is important that the practising side of our profession should be strongly represented on such a body. Only those who have actually practised medicine can be acquainted with all those intimate details of the relationship between doctor and patient, the knowledge of which is necessary in the consideration of medical problems of administration and practice. In the interests of the patients, and to preserve a proper spirit of competition, promotion must not depend on length of service, but on merit alone. A month of study leave in addition to annual holiday leave should be compulsory, and for it a man should return to a teaching centre. Medicine cannot make advances without research, so that it is held that the success or failure of any such scheme will depend on its attitude towards medical research and on the research work carried out under its direction. To this end, a federal director of research should be appointed, who would coordinate research throughout Australia, and collaborate with State research committees consisting of some practising physicians and surgeons to see that research into problems of medical importance was kept in the forefront; he would also collaborate with the heads of the present research institutes and university departments of medicine and the ancillary sciences. Such committees would not necessarily be composed of members of the service. Such an organization would encourage our young men with the keenest minds to follow a life of research or at least to devote a part of their time to research work, and when particular subjects were being investigated suitable men would be seconded from clinical and teaching work during the course of a piece of research. At least 3% of the total expenditure on the scheme should be allotted for research.

Australia might well be proud of such a service, and many men would be proud to work in it. Surely, if such a thing is worth doing, Australia will be prepared to do it well.

It is well to remember at this point that Germany, Italy and France have introduced national health insurance schemes, in which the doctors are paid on the *per capita* basis. Men who have had personal experience of these schemes tell me that the inevitable has happened, and that the standard of medical work has seriously deteriorated under what is almost entirely lay control. On the other hand, Russia has instituted a most successful full-time medical service entirely administered by medical men elected by the medical union; already this service has been responsible for considerable and notable research work. If our profession is asked to help in the formation of an inferior type of what has been called a "tip and run" service, which will be a poor service to the public and will lower rather than raise the standard of a profession of which we are all justly proud, I sincerely hope it will fight such a proposal to the last ditch.

Conclusion.

In conclusion, I should like to point out that a great many doctors believe that all necessary changes in practice can be evolved within the framework of our present system without disturbance to the present relationship of doctor and patient, and in every State sub-committees of the British Medical Association are considering constructive plans for improving our medical services. I am proud to say that in all our discussions I have heard little, if any, reference made to monetary considerations; but there is a strong desire to avoid sacrificing that independence which the doctor now possesses, and which plays so large a part in the confidence now existing between doctor and patient. In New Zealand a capitation fee service of 15s. per head was introduced; but only 30 out of 1,500 doctors agreed to serve under such a scheme, which was quite generous from a monetary point of view. However, they preferred loss of money to loss of freedom for themselves, and now a compromise fee for service scheme has been substituted, which does nothing to help the real progress of medicine, but does assure attention to sick people.

May I reiterate that my remarks are purely an expression of my own views, and that I do not speak for the Royal Australasian College of Physicians or for the British Medical Association.

Reports of Cases.

WIDE PROPAGATION OF A CARDIAC MURMUR.

By GUY GRIFFITHS, M.D., F.R.A.C.P.,
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"EVEN the hospital physician", says Sir Robert Hutchison, "finds it very difficult to watch his cases to the end." ("Some Principles of Diagnosis, Prognosis and Treatment", 1928, pages 21 and 22.) It therefore seems desirable to complete the record of a patient, whose illness not only presented extraordinary features, but was followed more or less continuously from its inception in 1916 to its sad end in July, 1942, more than twenty-six years later.

The patient was shown at meetings of the New South Wales Branch of the British Medical Association on four different occasions, and the condition was described in THE MEDICAL JOURNAL OF AUSTRALIA on July 7, 1917, March 15, 1930, November 20, 1937, and December 24, 1938, in each case under the title "Wide Propagation of a Cardiac Murmur". The clinical record may be summarized as follows.

Clinical Record.

E.M.T. (afterwards E.M.W.) had growing pains in 1916 when six years of age. In 1917 she had rheumatic fever; her heart was widely dilated and an extraordinarily loud, rough, systolic murmur was heard, not only at the cardiac apex, but over the whole of the chest, right side and left, back and front, all down the spine to the sacrum, in each loin, in the right side of the upper part of the abdomen below the ribs, in the inguinal and femoral canals and sometimes on the vertex of the head. Her joints, but not her heart, recovered completely; rheumatic fever did not recur; the mitral condition gradually progressed from regurgitation to stenosis especially after she bore a child on October 3, 1928. As myocardial degeneration and auricular fibrillation supervened, the murmur was less loud, though after twenty-one years it was still audible all over the chest, in the upper right part of the abdomen, down the spine and over the sacrum.

In 1938 Mrs. W. passed to the care of Dr. C. W. Sinclair, who kindly allowed me to see her from time to time. When I last examined her on August 17, 1941, I noted that she had been bedridden for two months, she was calm and resolute, her face was thin, her hands and arms were œdematous; there was huge œdema of the feet and legs and some of the abdominal wall with much ascites, œdema of the loins and scant urine. The cardiac apex was about eight inches from the mid-line, the frequency seventy per minute; the familiar loud murmur was heard even over the sacrum; the second mitral sound was reduplicated; there was dulness at the left, but not at the right, pulmonary base; in fact, she presented the classical picture of congestive cardiac failure.

Despite Dr. Sinclair's very thorough and skilful treatment with digitalis, mersalyl, morphine, heroin and repeated paracentesis, she gradually failed; the œdema became more massive, and the ascites increased (sometimes four pints of fluid were withdrawn). Southey's tubes in the legs gave some relief, and sulphathiazole prevented infection. Her pulse was irregularly irregular with a frequency of about 65 per minute; the electrocardiograms showed auricular fibrillation and myocardial degeneration with right ventricular preponderance. On July 19, 1942, she died, brave to the last.

Post-Mortem Findings.

A post-mortem examination was made on July 20, and the findings were reported as follows.

The body was that of a small, pale young woman. The abdomen was enlarged and the extremities were œdematous. The brain was not examined. A small thymus gland was present; it was drawn over to the left and formed part of a thick adhesion connecting the posterior surface of the manubrium to the left pleura; this in turn was part of a chronic adhesive mediastinitis.

The pericardium was thickened and completely adherent to the surface of the heart, to the mediastinum and to the left pleura; this pleura was about one-eighth of an inch in thickness, and was fibrous and lined by shaggy fibrin. Similar fibrin, having a "bread and butter" appearance, covered the left lung, which was small and flattened against the mediastinum. A pleural effusion of about 1,000 cubic centimetres of clear fluid was present. The lower lobe of the left lung was completely deflated, and consisted of a strip of reddish-grey rubbery tissue about half an inch thick and almost completely carnified. The upper lobe was partly deflated, and was fixed by dense adhesions to the mediastinum and the left atrium. The left pulmonary artery contained ante-mortem clot. The only change detected in the right lung was chronic congestion; its surface was covered by fine adhesions. The right lung weighed 16·5 ounces and the left lung 12·5 ounces. In places the pericardium was calcified; the largest area of calcification was a strip 9·0 centimetres in length over the atrio-ventricular sulcus. The right atrium was a small, flattened cavity about 4·0 centimetres in length; in its lateral wall was a round area of necrosis. No abnormality was detected in the pulmonary or tricuspid valves. The right ventricle was slightly dilated; it was flattened by the bulging wall of the hypertrophied and dilated left ventricle, which varied from 2·5 to 3·0 centimetres in thickness. The aortic cusp of the mitral valve was slightly thickened; the other cusp was thickened, deformed, calcified and bound down by short, thick *chordæ tendineæ*, a wide mitral orifice which admitted two fingers being left. No abnormality was detected in the aortic valves. The coronary vessels were thin-walled. The aorta was somewhat flattened by a thick fibrous sheath. The heart weighed 20 ounces.

The peritoneal cavity contained about 1,200 cubic centimetres of clear fluid, in which were a few fibrinous clots. The mesentery and transverse mesocolon were œdematous. The liver was enlarged and hard; its capsule was a thick, opaque sheet of tissue.

The spleen was enlarged and hard, and perisplenitis was pronounced. No gross abnormality was detected in the pancreas. No conspicuous abnormality was found in the stomach and small intestine; the caecum was distended.

The kidneys were essentially similar; they were somewhat small, each weighing approximately 4·0 ounces. Their capsules were thickened and examination of the cut surface disclosed congestive changes. The suprarenals seemed normal. The uterus and ovaries appeared normal for a woman of the subject's stated age.

Examination of sections of the lower lobe of the left lung revealed atelectasis with extreme fibrosis. The pathologist considered that the condition was probably of long standing. Giant cells of tuberculous type were seen in the thickened pleura. Examination of sections of the upper lobe of the left lung revealed that the lung was partially deflated and that several nodules with commencing caseation were present. The pleura was thickened and contained giant cells of tuberculous type. Examination of sections of a mediastinal gland revealed numbers of well-formed tubercles, and tubercle bacilli were found in sections stained by the Ziehl-Neelsen method. Sections of the left ventricle were examined; pericarditis, probably of long standing, hypertrophy of heart muscle fibres and extensive fine fibrosis were found. No Aschoff bodies were seen. In the liver subacute venous congestion with deformation and atrophy of the liver cells was found. The fibrous tissue of the interlobular septa and the portal tracts was greatly increased. In the kidney small granulomata of tuberculous type were present, and acid-fast bacilli were found. In some glomeruli degenerative changes were seen; the tubules of the cortex were dilated, and there was overgrowth of interstitial tissue.

A normal *ligamentum arteriosum* was found, and there was no coarctation of the aorta, nor any of the structural changes usually associated with it.

Comment.

The appearance of tuberculosis was surprising, and the date of its origin can only be conjectured. Otherwise the lesions found conformed to the ante-mortem expectation; but the pericarditis was something additional. The cause of the extraordinary loudness of the murmur remains unexplained.

Reviews.

THE TREATMENT OF WAR WOUNDS AND FRACTURES.

AMONGST the spate of books about the treatment of trauma which the present conflict has produced, that by J. Trueta on the principles and practice of war surgery must be accorded a place of unique importance.[1]

The author is that Catalonian surgeon to whom is chiefly due the development and publicizing of the methods of war surgery employed in the Spanish Civil War, which have since found such wide acceptance in the present struggle. Written in beautiful, sensitive English, and replete with case histories from the Oxford Hospital which has received the author as an honoured guest, this book indicates the principles upon which such outstanding results have been achieved.

The methods of treatment here described are spoken of as biological methods, because they aim at collaboration with the natural body mechanisms of defence and repair. The author shows, for example, that in excising a wound the surgeon anticipates Nature in eliminating dead tissues, a process which otherwise would be long and arduous. In immobilizing the injured limb, he assists Nature by preventing the slightest movement, and so obviates the necessity for muscle spasm, as well as reducing the flow of toxic lymph into the general circulation. Though the author may seem to impute a too purposive character to these local defensive reactions, yet the practice based on assisting them has secured outstanding results.

In a valuable historical review of wound surgery, Trueta shows how great was the sum of human misery and death induced by departure from the biological highroad recognized by Hippocrates as the "healing power of Nature" into sidetracks sign-posted by Galen and his followers on a basis of speculative theories and false conceptions. The biological treatment of injury is shown to embrace five points, namely: prompt surgical treatment, cleansing of the wound, excision of the wound, provision of drainage, and immobilization in a plaster of Paris cast. How each of these is to be achieved is shown in the greatest detail, replete with clear illustrations. There are certain much debated matters in wound surgery, about which the inquirer on reference to this book will find a finely balanced judgement.

The problem as to whether primary wound suture should ever be applied to war wounds is such a matter. Trueta's view is that primary suture is justifiable in a limited class of injuries involving: (*a*) wounds of joints operated on within a few hours of injury in which both the synovial membrane and the skin can be apposed without tension; (*b*) wounds of tendinous regions, where healing by granulation leads to such disastrous functional results that primary suture should be employed if it is technically possible; and (*c*) the majority of lacerated wounds involving only skin, if operated on early.

Concerning the local application of sulphonamide compounds, the author's experience has led him to regard them as only of value in a limited field. When applied to the newly excised wound they are probably valuable; to a granulating surface they have little value, probably less than antiseptics of the flavine group; while if local infection is established, they are worthless. In his own practice he limits their use to the preparation of a healthy wound for skin grafting, and to a recently inflicted wound when for some reason operation must be delayed for more than eight hours.

Though every paragraph in this book repays reading and rereading, it is in the chapters dealing with the primary surgical management of wounds that the instructions given carry unsurpassed authority. To all members of the profession concerned with this phase of therapy, the possession of this book is essential; while as an essay on the development of practice from basic surgical principles it should merit a place in the library of all practitioners of the healing art.

[1] "The Principles and Practice of War Surgery, with Special Reference to the Biological Method of Treatment of Wounds and Fractures", by J. Trueta, M.D.; 1943. London: Hamish Hamilton Medical Books in conjunction with William Heinemann Medical Books, Limited. 9¼" × 6¼", pp. 407, with 136 illustrations. Price: 42s. net.

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DISCIPLINE IN THE TRAINING OF NURSES.

THE profession of nursing is one that calls for some years of study and training, and less than a moment's reflection will show that it is unreasonable to expect that any course laid down will not need revision and readjustment from time to time. Additions are continually being made to medical knowledge; new diseases are discovered and every now and again new syndromes are described, fresh remedies appear and fresh methods of treatment are elaborated. In these circumstances the art of the nurse cannot remain unchanged, nor her knowledge static. Apart from this the range of hospital influence is extending and will continue to extend. Hospitals are now open to every member of the community but they are not only places where the patient remains till he recovers him of his illness; they are also places where disease is studied, and it is, or should be, studied as it affects the patient in the whole of his being. This side of hospital activity is furthered by the almoner services recently discussed in these columns which may follow the patient into his home when he leaves hospital. It is thus clear that young women who seek to follow the profession of nursing should have intelligence, adaptability, a certain amount of psychological insight and human sympathy. Reference has repeatedly been made to the need for a nurse to have a sense of vocation, and there is no doubt that the woman who has this compelling idea will because of it become a better nurse. In many places difficulty is experienced in finding young women suited to the nursing profession who are willing to enter its ranks. And it is not always easy, once these young women have embarked on their training, to keep them from abandoning it. In its report recently presented to the Parliamentary Joint Committee on Social Security, the Medical Survey Committee (also known as the Factual Committee), in accordance with its terms of reference, dealt *inter alia* with the type of training, conditions of service, rates of pay of nurses and also social welfare and home nursing services. The committee stated that a considerable number of nurses abandoned the course during the first year. "The work itself", it added, "is arduous and tiring; the necessity to utilize off duty time for lectures . . . eliminates physical and mental rest; the discipline of hospitals is resented by many who find it impossible to accommodate themselves to rigid rules, 'living-in' and severe restriction on social contacts and activities." Reference has been made in English reports on nursing to the question of discipline in the training of nurses. Readers will probably remember the report of *The Lancet* Commission on Nursing issued in 1932.[1] In this report an attempt was made in the recommendations to eliminate anomalies, unnecessary hardships and interferences with the personal freedom of nurses. In 1939 an interim report by an interdepartmental committee appointed jointly by the Ministry of Health and the Board of Education was published by His Majesty's Stationery Office. This committee stated that in the evidence which came before it no aspect of the nurse's life had incurred more criticism than the discipline and restrictions on personal liberty to which she was subjected. After sifting the evidence the committee concluded that the imposition of unreasonable rules and restrictions was by no means uncommon and exerted a most deplorable effect not only on those already in the profession, but also upon girls, or the parents of girls, who were contemplating nursing as a career.

There was quite enough, in our opinion, in the Interdepartmental Report to justify a serious inquiry in every English-speaking country into the question of discipline in the training of nurses; and much good might have resulted had the recommendation been adopted, that the governing bodies of hospitals which had not recently revised their rules, should examine them carefully and in detail, with the assistance of the members of the staff and of the probationers, so as to bring these rules into conformity with modern conditions and the best psychological knowledge. There is little doubt that the intervention of the war in some instances prevented effect from being given to this recommendation. Still, medical practice, hospital practice, social service and many other aspects of the health life of the community are in the melting pot of public discussion and reformative planning. Nothing but good can come from the ventilation of this subject, and there is the additional incentive that during the war recruits to the nursing profession are not becoming more numerous. We feel compelled to raise the question by the recent publication by Dr. Sheila M. Bevington of a study entitled "Nursing Life and Discipline".[2] Dr. Bevington is welfare adviser to Vickers-Armstrong, Limited, Newcastle-on-Tyne. She carried out her investigations under the ægis of the National Institute of Industrial Psychology during tenure of a research scholarship instituted by the trustees of the late Lord Leverhulme's benefactions. She states in her opening remarks that *The Lancet* inquiry and the Inter-departmental Report, as well as two other inquiries by Harold Baume and G. B. Carter respectively, dealt only incidentally with discipline and staff relations in hospitals. Dr. Bevington carried out her investigations "to test the popular belief that hospitals still cling to an outworn disciplinary tradition, long discarded elsewhere". She studied her subject at five hospitals in the south of England. Each was a recognized training school for nurses; they were of large, medium and small size; they

[1] The report was issued as a separate publication, but extracts from it were published in *The Lancet*, Volume I, 1932, at pages 415, 473, 532 and 585.

[2] "Nursing Life and Discipline: A Study Based on Over Five Hundred Interviews", by Sheila M. Bevington, Ph.D. (Econ.), with a preface by Charles S. Myers, C.B.E., F.R.S., and a foreword by Florence Horsbrugh, M.B.E., M.P.; 1943. London: H. K. Lewis and Company, Limited. 8½" × 5½", pp. 101.

were under county and under voluntary control; and were of "traditional modern and progressive type". A medical school was attached to one of the hospitals. The technique consisted of a planned confidential interview, and 525 nurses were questioned. Ward sisters and staff nurses were interviewed in the same proportion as probationers; matrons were not included. Apparently Dr. Bevington was not always successful when she applied for permission to interview the staff of a hospital—she mentions that some hospitals refused her entry and draws the justifiable conclusion that they were of the less progressive type. She follows this observation with a remark which, in view of her general findings, is somewhat naïve: that if a recruit chooses her hospital carefully and is suited to nursing, her training period can be happier than is popularly supposed. But let us look in detail at some of the problems and difficulties, remembering that Dr. Bevington approaches them from the psychological point of view; at the same time it must be admitted that she appears to be quite aware of the medical, or shall we say vital, issues involved. A trainee, freshly arrived at a hospital, almost inevitably tends to lose touch with her old circle of friends and acquaintances; she has to choose her companions when off duty from among her fellow-workers; even when she makes friends among her associates, they cannot always arrange to be off duty together. Dr. Bevington mentions four sources of purely emotional strain. To begin with, the novice to nursing finds herself suddenly surrounded by sick and suffering people. Then there is the embarrassment of the constant publicity of ward life in the sense that work is always under observation and liable to be criticized by many different persons. Thirdly, there is an uncongenial impersonal relationship with a "hierarchy of authorities" which supervises off-duty activities as well as those associated with active nursing duties. Lastly, many probationers suffer acutely because they receive orders from senior nurses or staff nurses who are clumsy in handling juniors or inept especially in giving criticism. Unfortunately also the compensations of hospital life, those that come with increasing knowledge, are seldom apparent during the early stages of training. The problems of the ward sister are different. The ward sister has to be a good administrator and a good manager. She is responsible for the treatment of the sick people in her ward; she has to deal with patients' relatives, a most important and difficult business, as all general practitioners of medicine will agree; she has to be able to deal with a domestic staff; and she has to teach her probationers, even though the hospital numbers a tutor sister among its staff. In all these duties she is largely at the mercy of the matron, who has in her hands the allotting of probationer trainees to the several wards. Dr. Bevington discusses most of these points at some length and she also goes into such questions as meals for nurses (a very necessary inquiry), the care of the nurse's health and life in the nurse's home. She gives tables setting out the findings in regard to the five institutions investigated by her. A most interesting chapter deals with the giving of criticism. There is all the difference in the world between fault-finding which merely rebukes the offender perhaps in anything but a gentle and forbearing way, and fault-finding which tries to discover why a mistake has been made and is accompanied by an explanation to obviate a recurrence of the error. At this stage it may be well to set out the reforms and researches advocated by Dr. Bevington. They are as follows:

1. Widening the previous experience demanded of sister-housekeepers and the (post-war) introduction of more scientific dietaries.
2. Specific teaching on ways of keeping physically fit in hospital, the fuller use of precautions against minor infections, and scientific investigation of the incidence, causes and prevention of sickness among nurses.
3. Appointment in the larger hospitals of welfare supervisors, to help the probationer in her adjustment to hospital life, and to increase her cultural and social development and physical well-being.
4. Scientific research into the effects, on patients' recovery, staff health, welfare and training, of different schemes for distributing duty under the 96-hour fortnight.
5. Specialization in the larger hospitals of an assistant matron on staff problems, such as the allocation of nurses to wards, coordination of ward and class room training, discipline *et cetera*.
6. Modernization of recruitment methods and interviewing techniques and the introduction of at least an intelligence test.
7. Improvement of staff relations by the practical instruction of senior probationers and staff nurses in the methods of training and handling subordinates, and of sisters by means of discussion groups both within the hospital and regionally.
8. Institution of nurses' representative councils, suggestion schemes, and the right of appeal to a house committee in the event of threatened dismissal.

It should be noted that Dr. Bevington presents the subject of discipline in its modern garb, for she discusses the recent disciplinary changes that have been effected in schools, in prisons and in industrial undertakings.

Though in discussion of this subject there is scope for much argument, no one will deny that it is worthy of investigation. It would appear that the discipline of nurses can be discussed in regard to work in the wards and time spent off duty. The nurse off duty should be a free person. School girls of the present day are taught to be self-reliant. They learn what responsibility means and when they leave school are generally prepared to take it. The healthy, self-reliant mind of the young girl of today who has been decently brought up, is not understood by all those of an older generation, and the older generation is well represented among hospital officers, matrons and ward sisters. It is natural that young women entering hospital should expect to be treated with an understanding at least equal to that to which they have become used. It will be frankly admitted that since they are to become members of a profession that deals with men and women who suffer in mind and body, they must become imbued with the ethics of their calling and must learn that the ground on which they tread is holy. This must be done by example and precept. The example should be set at all times by their seniors; the precept should be forthcoming in the wards and during set lectures. Honour and self-reliance will not be inculcated by the use of set rules, coercion and prying methods. It is incredible, as the Inter-departmental Report asserts, that in certain institutions probationers and nurses are liable to have their chests of drawers and cupboards inspected at any moment without warning. In ward teaching due allowance must be made for the responsibilities of the sister-in-charge. But here the outcome will depend on the mental equipment of the woman chosen to become sister. And when she is chosen she should be taught how to teach. Even if the hospital can boast of a sister tutor, as all large hospitals should be able to do, the ward sister will still have to teach her probationers. Of course, reforms such as have been discussed will mean the expenditure of

more time than is at present available in most hospitals, and this means shorter hours of duty and a larger staff. Be that as it may, the present status and conditions of service of the nursing profession in Australia should be discussed by those concerned. There is no need to wait until the war ends. If changes have to be made, the way can be prepared now for action later on. As a basis for discussion the Inter-departmental Report and Dr. Bevington's book are to be recommended. Hospital authorities should consider the matter. If they fail to do so, or even if they do consider it, nursing organizations should not be idle. Unfortunately there is no single organization that is representative of Australian nursing as a whole. But that is another story.

Current Comment.

THE CHILD IN WAR.

THAT there is hardly a child on the face of the globe whose life is not being altered in some way by the current war is a statement made in the opening paragraph of a review by Irving J. Wolman on the child in war.[1] "To a greater or less degree each must contend with shortages of food and other necessities, infectious agents on the move, abnormal emotional experiences, altered home conditions and family relationships, and all kinds of deviations from a peaceful normal pattern of living." In some of the occupied countries of Europe many children are dying of starvation; in other countries the plight of children is not so desperate. In Great Britain special attention has been paid to the nutrition and health of children, and in comparison with the children of some other countries the children of Australia cannot be said to have been seriously affected. The health of children, who are the men and women of the future, is the concern of the people of every country, whether they themselves have suffered severely or not, and medical men and women as guardians of the public health ought to be concerned most of all. Wolman has provided a review which should stimulate medical thought and show the need for intelligent organization in the relief measures of the future. Wolman's review is the more important because in the countries laid waste by war the collection of scientific data must be very haphazard if it is undertaken at all, and in belligerent countries medical practitioners and other scientific investigators are so urgently engaged on other tasks that observations are not being systematically recorded.

In compiling his review, Wolman has adopted the expedient of examining the records of the war of 1914-1918 to discover what general trends and principles were noted by pædiatricians during and immediately after that conflict. He points out that scientific studies on health and growth made at that time are surprisingly few, and that many of them seem incomplete and inadequate when judged by standards of today. During the last war knowledge on vitamins and of nutritional requirements was not nearly so extensive as at present and "the fundamental standards by which we try to evaluate growth and nutrition were still in the nursery stage of development". Wolman has tried to summarize a few of the more objective and scientific contributions; he has restricted the selected papers to those dealing with child health and growth and has merely touched upon those dealing with nutrition, feeding and epidemiology.

The first question dealt with is the effect of malnutrition upon intelligence and behaviour. A special study was made in 1919 of the school population of a German town, Trier, which had a population of 55,000 persons. A psychiatric survey was made of 6,500 school children ranging from five and a half to fourteen years of age. Approximately half the children had been on starvation rations for two to three years. The official diet for each day was made up of unmilled rye bread, marmalade of turnips and beet molasses, potatoes and war soup containing little or no fat. On one day a week sausage or herring and butter or margarine were added. Comprehension of lessons was found poor and slow, the attitude of the children was disinterested and their wits were dull. It was thought that fatigue and restlessness were caused not by malnutrition alone, but by actual hunger as well. There were admittedly other environmental factors to disturb the children, but the most important single factor in retarding educational progress was the poor nutrition and physical condition of the children themselves. The second question discussed is the effect of war upon children's mental condition. About 8% of the children showed signs of serious injury to the nervous system due to starvation; this took the form of mental retardation. Minor disturbances which were common were expected to clear up as restrictions on food became eliminated and life became more peaceful. In regard to the effect of war upon infant health, it was noted that the weight of newborn infants did not fall below the peacetime level until the third year of war. Recovery from the physiological loss of weight in the neonatal period was slowed somewhat and the frequency of stillbirths, prematurity and congenital debility of the newborn increased a little. Infant mortality statistics from countries actively engaged in the war at close range showed an increase during the war periods and until shipments of food were sent in after the blockade was lifted. For many years children born under conditions of the hunger blockade were looked upon by local medical practitioners as a handicapped group, unusually susceptible to illness and slow to convalesce. After referring to disturbances of the glands of internal secretion, Wolman discusses the increased incidence of tuberculosis in children, which was regarded by all observers as due to diminished resistance consequent on malnutrition and poor hygiene together with increased opportunities of infection from adult sufferers not admitted to hospital. In regard to the results of starvation upon size and growth, it is noted that in Munich in 1917-1918, 2,500 children entering school were measured and the data were compared with those for 1912. The average weight of the children was found to be 4% less than before the war and the height 7% less. Experience showed, however, that once a liberal intake of food was provided and children were placed in favourable environments, recovery was rapid, sudden growth occurring and visible signs of good health becoming manifest. One group of Austrian children sent to rural camps for one to two months gained on an average 0·3 kilogram a week. (The average gain for normal healthy American children is only 0·05 kilogram a week.)

Wolman refers shortly to the effects of the present war. As already mentioned, the effect must vary enormously according to the country that is considered. In Glasgow infant mortality has risen slightly during the last three or four years; certain diseases have increased and in some instances infection has been favoured by the crowding of persons into air-raid shelters. On the psychological side the majority of small children have suffered no neurotic or similar ill effects. Among older children delinquency has increased, but there are several reasons for this. On the other hand an investigation in Finland during the Russo-Finnish war led Brander to conclude that profound changes had taken place in the psychic life of the Finnish child.

Wolman makes some important recommendations. To avoid the delay, confusion and overlapping which occurred after the 1914-1918 war in the bringing of relief to Europe, effective coordinating machinery for administering medical relief must be created with as little delay as possible. He also holds that the supervision and practical management of medical relief for children should be entrusted to skilled pædiatricians, who, he thinks, would be able to draw conclusions that would benefit the children of the future. Whether this would be wise or not, we may be sure that there will be plenty for everyone to do and Australia will probably find her sphere in the supplying of food and wool for clothing.

[1] *The American Journal of the Medical Sciences*, June, 1943.

Abstracts from Medical Literature.

PATHOLOGY.

Bilateral Cortical Necrosis of the Kidney.

WALTER H. SHELDON AND ARTHUR T. HERTIG (*Archives of Pathology*, November, 1942) present two cases of bilateral cortical necrosis of the kidney following toxic separation of the placenta. The renal lesions consisted of degeneration in the wall of the afferent arteriole at the point where the vessel enters the glomerulus. This degeneration was in most instances associated with thrombosis of the vessel. Retrograde extension of the process into the intralobular and interlobar arteries followed and led to ischæmic necrosis of the kidney. Similar vascular lesions resulting in necrosis were found in the anterior lobe of the pituitary, in the pituitary stalk and in the region of the *tuber cinereum* at the floor of the third ventricle. They were also seen in the caecum and the adrenal.

Osteochondromata Arising from the Base of the Skull.

SEVEN cases of osteochondroma arising from the base of the skull are reported by Carl Felix List (*Surgery, Gynecology and Obstetrics*, April, 1943). In four almost identical cases, the lesion originated extradurally from the sphenoid bone and protruded intracranially in the posterior or parasellar region. In the fifth case, the extradural tumour of the sphenoid was the only cranial manifestation of osteochondromatosis. In the sixth and seventh cases the neoplasm originated extracranially in the ethmoidal region, invaded paranasal sinuses, and finally extended into the cranial cavity. The sphenoid and ethmoid are preferential sites of osteochondromata. These lesions develop apparently from cartilaginous rests of the primordial cranium. Because of the slow rate of growth, the clinical course of osteochondromata is usually long, often lasting more than a decade. They occur in young adults and are possibly more common in the female. Intracranial osteochondromata in the parasellar region produce a neurological syndrome typical for this location. Primarily extracranial osteochondromata show signs of an expanding lesion in the paranasal sinuses and cause neurological manifestations only at an advanced stage. Skiagrams of basal osteochondromata are almost pathognomonic and are characterized by a combination of bony erosion and heavy calcification. Since most intracranial osteochondromata must be removed piecemeal, their extirpation may be incomplete and hence a recurrence is likely to develop eventually. The postoperative period of survival may be a long one, unless the neoplasm has sarcomatous properties.

A Study of the Posterior Urethra in the Newborn Female.

ACCORDING to Francis A. Beneventi (*Surgery, Gynecology and Obstetrics*, January, 1943) there has been much difference in opinion as to whether the female urethra contains glands in its proximal third. In view of the conflicting evidence it was decided to study the proximal urethra in a series of newborn infants because it was thought that these specimens would be more representative of the normal state than would specimens from later decades of life after there had been opportunity for intercurrent pathological processes. In some cases glands indistinguishable from those in the infantile male prostate were found. Such glandular elements penetrate down to the sphincter muscle, sometimes occupying the cephalic two-thirds of the urethrovaginal septum. The significance of these findings lies in the fact that urinary obstruction in females might be caused by hypertrophy of such glandular elements.

Mesonephroma or Teratoid Adenocystoma of the Ovary.

W. B. STROMME AND H. F. TRAUT (*Surgery, Gynecology and Obstetrics*, March, 1943) have collected ten cases which belong to the group of ovarian tumours which have been designated by Schiller as mesonephroma. This group has, according to them, a distinct morphological structure which, though subject to considerable variation, seems to differentiate them from other ovarian tumours. It would, in their opinion, be a satisfaction if Schiller's theory of ætiology could be accepted. However, the characteristic pseudo-glomerulus is infrequently demonstrable and the similarity of the acini to the collecting duct tubules is not so close that these tumours would be definitely linked up with the mesonephros. It is important for purposes of study as well as treatment to separate tumours into distinct categories when this can be done, and the authors feel that this is justifiable in this instance. In the authors' opinion this group of tumours has many of the characteristics of the pseudomucinous as well as the serous cystadenomata. Nevertheless, the tumours do not fall into either of these groups because the well differentiated forms have not the remotest resemblance to them. The fact that the tumours sometimes secrete mucinous material and that serous, granulosa and thecal elements can be found in them, leads the authors to the conclusion that for the time being it would be better to regard the group as teratoid cystadenomata until more is known about it.

The Nature of the Renal Lesion with the Sulphonamides and its Prevention with Urea.

INTRARENAL foreign material following sulphonamide drug therapy consists, according to Sidney S. Sobin, Lawrence M. Aronberg and Harry C. Rolnick (*The American Journal of Pathology*, March, 1943), of two types: (*a*) precipitated sulphonamide and its acetylated products; (*b*) cellular debris, with calcium and iron deposition around or on this material. Urea simultaneously administered with sodium acetylsulphapyridine will prevent the precipitation of sulphonamides and the formation of renal calculi in rats. The action of urea is independent of a diuretic effect and depends upon a specific solvent effect on acetylsulphapyridine. The nephrotoxic properties of acetylsulphapyridine are mechanical in nature, and result from precipitation of the drug in the renal tract. Calcification in the kidney and the resultant calculus formation in sulphonamide-treated animals is dependent upon local tissue damage and the secondary deposition of calcium and iron upon focal, non-viable structures.

Post-Metastatic Survival of Osteogenic Sarcoma.

KELLOGG SPEED (*Surgery, Gynecology and Obstetrics*, February, 1943) reports the history of a patient suffering from osteogenic sarcoma who has been kept under observation for thirteen years. The outstanding points are: A definite diagnosis of osteoblastic osteogenic sarcoma of the femur was made primarily by both radiological and histological examination. The leg was amputated well above the growth on the femur before any metastases in the lungs could be certified. The tumour was then clinically at least nine months old and there had been one attack of cough with coloured sputum, not examined. Amputation was performed after both femoral artery and vein were doubly tied through a separate incision; no constrictor was employed and the leg was very gently handled during operation. Within ten months the patient complained of chest pain, had bloody sputum and presented radiological evidence of pulmonary metastases. No local or regional recurrence ever developed. The shadows of the pulmonary metastases for a few months seemed to multiply and increase in size, then they reached a stationary stage which lasted for several years, and finally they changed slightly in density but not in size. The change in density might have been the result of improved radiological technique or better films. The radiological shadows of pulmonary metastases remain after twelve years. The patient is alive and as well as ever. He has maintained a more or less stationary weight for ten years. No radiological, serum or other type of therapy has been used, except for one suberythemal dose of X rays which was given in the year following amputation.

Mesotheliomata of the Uterine and Tubal Serosa and the Tunica Vaginalis Testis.

NEWTON EVANS (*The American Journal of Pathology*, May, 1943) describes four tumours of markedly similar microscopic structure, located in direct connexion with the female or the male generative organs and involving their serous membranes. He points out that histologically similar tumours have been described, but have been variously classified. In discussing their histogenetic classification, the author first discusses the possibility of an epithelial origin of these tumours. He thinks, however, that the cell morphology fails to correspond to any known epithelial type, and that location and anatomical and histological relationships are inconsistent with an origin from any recognized normal epithelial structures. On the other hand, the tumour cannot be grouped with angio-endotheliomata because the relationship of spaces and channels, demonstrated in the presented group, to the serous surfaces, precludes angiomatous character on account of the recognized histological independence

of these two structures. The author admits that there is a superficial similarity between the cellular structures here described and some of the appearances illustrated for the so-called ovarian "mesonephromata". A careful study, however, of the comparative histology fails to show any essential similarity. In view of the foregoing considerations, particularly the anatomical location of the tumours in immediate relationship to the serous membranes and the clear-cut continuity of the cells lining the acinus-like spaces with the lining mesothelial cells of the overlying serosa, it is held that these tumours should be denominated mesotheliomata. That each of this small group of tumours was located in direct relationship to the generative organs suggests the possibility that the histogenic factors concerned may be related to the potentialities of the specialized mesothelium of the urogenital ridge, which in the embryo serves as the origin of the gonadal epithelial structures. It will be of interest to know whether tumours of this histological type may be found in the other serous cavities or in portions of the peritoneal cavity more remote from the urogenital ridge.

Bacterial Endocarditis due to Clostridium Welchii.

ROBERT H. MORE (*The American Journal of Pathology*, May, 1943) presents a case in which *Clostridium welchii* septicæmia occurred after the insertion of radium into the cervix for treatment of carcinoma. At autopsy, an acute bacterial endocarditis of the aortic valve was found. Careful investigation led to the conclusion that *Clostridium welchii* was the bacterial ætiological agent. The autopsy findings also confirmed the clinical opinion that the endocarditis occurred in a heart previously damaged by rheumatic infection. In a careful search of the literature there was found no previous report of bacterial endocarditis due to *Clostridium welchii* in which the diagnosis had been established by post-mortem examination.

MORPHOLOGY.

Nerves in Umbilical Blood Vessels.

M. SPIVACK (*The Anatomical Record*, January, 1943) states that modern neuro-histological methods appear to show that the umbilical blood vessels of the cord proper in man and guinea-pig are devoid of a nervous apparatus. The abdominal portions of the umbilical vessels in both species are richly supplied with non-myelinated nerve trunks and nerve fibres, which in some areas form larger or smaller meshes. It is significant that although both portions of the umbilical vessels (external and internal) were stained simultaneously as one preparation (guinea-pig), nerves were discernible in the abdominal part only, for the umbilical cord proper gave negative findings. Nerves of the abdominal blood vessels of the guinea-pig were not detected at the navel or close to it. If that stretch possesses nerves, it was not revealed by the stain. A network, found in the capillaries of fœtal membranes in man and in the nutrient vessels of the umbilical cord of the guinea-pig, might suggest the nervous "terminal reticulum" of European authors. To the present author this network has not yielded definite proof of its nervous origin. That it belongs to connective tissue is perhaps more likely.

Loss of Olfactory Nerves with Age.

C. G. SMITH (*Journal of Comparative Neurology*, December, 1942) finds that the number of fibres in the olfactory nerve decrease with age. These fibres begin to disappear shortly after birth and continue to do so throughout life at approximately 1% a year. No sex difference in the loss of fibres was observed. The loss of fibres in the olfactory nerves, with increasing age, is much greater than that reported in the thoracic nerves, and this finding, *plus* the fact that the olfactory nerves may be completely atrophic in early life, is taken as evidence that nasal disease as well as age is responsible for the disappearance of the fibres in the olfactory nerves.

Relations of Inferior Laryngeal Nerve.

A. F. REED (*The Anatomical Record*, January, 1943) records observations made during the dissection of 506 inferior laryngeal nerves (253 cadavera) on the relations of this nerve to the inferior thyreoid artery. Twenty-eight different types of relations were found and illustrated. The frequencies in which the nerve passed (*a*) superficial to the artery and its branches (18·6%), (*d*) deep to the artery and its branches (39·1%), and (*c*) between the branches of the artery (36·5%), are tabulated. Likewise the nerves which divided into two or more branches (5·4%) while in direct relation to the artery or its branches are recorded. In three cadavera (0·6%) the right inferior laryngeal nerve was found to arise from the vagus high in the neck and therefore did not follow a recurrent course. The relations of the inferior laryngeal nerve to the inferior thyreoid artery were alike on the two sides in only 17% of the cadavera dissected.

Interstitial Cells of Testis.

W. F. POLLOCK (*The Anatomical Record*, September, 1942) finds that in the testis of the cat and certain other animals compounds with the chemical properties of testosterone are confined exclusively to the interstitial cells and are not detectable elsewhere in the gland. This supplies histochemical evidence supporting the physiological evidence that the interstitial cells are the source of the testicular androgen.

Innervation of Lungs and Trachea.

A. G. ELFTMAN (*American Journal of Anatomy*, January, 1943) describes the ganglia, nerve fibres and their terminal endings in the lungs and trachea of the dog. In sections made from older animals the preganglionic parasympathetic fibres end in pericellular baskets about cells in ganglia within the lung. The pericellular baskets are not visible in younger animals. The parasympathetic origin of these preganglionic fibres is proved by their persistence after sympathectomy. Since efferent fibres to the bronchial muscles and to the intrapulmonary glands originate in the intrapulmonary ganglia, they conform to the usual description of the post-ganglionic parasympathetic fibres. They are of small diameter and do not end in terminations as complex as those of the afferent fibres. The intrapulmonary glands may also receive sympathetic innervation. The smooth muscle of the respiratory tree is provided with afferent endings different in type from the muscle spindles of striate muscle. A type of termination similar to that of the smooth muscle is found supplying the perichondrium. The epithelium of the lung is supplied with a variety of endings and six types are described in the trachea, bronchi, respiratory bronchioles, alveolar ducts and air sacs.

Motor Cells in Human Spinal Cord.

H. C. ELLIOTT (*American Journal of Anatomy*, January, 1943) found that the motor cells of the human spinal cord are grouped in nuclear masses, the nuclei forming a definite pattern. He found that the cell groupings are much more clearly defined in the fœtal cord than in the adult and are clearer in fœtuses of 15 to 20 centimetres' crown-rump length than at any other stage of development.

The Blood Picture of Athletes.

E. J. FARRIS (*American Journal of Anatomy*, March, 1943) found that the emotional states of athletes before intercollegiate events produced lymphocyte counts ranging from 39·2% to 59·8% in 123 cases. The intensity of activity in competition together with duration produced a leucocytosis in all events. The magnitude of the leucocytosis at the termination of the game was dependent primarily upon the intensity of the activity rather than upon the duration. A certain intensity in activity was essential in order to produce a marked leucocytosis, even though the competition was prolonged, as is evidenced in the tennis and golf findings. In rowers, a leucocytosis was evident in precontest counts. The increase in leucocytes during a match gave an index of the strenuousness of the sport which paralleled closely the rating of twenty-five experts in athletics. The total number of erythrocytes per cubic millimetre increased in the short-time athletic events, but decreased in events which required over twenty-five minutes. The article is accompanied by numerous tables and graphs.

The Optic Radiation.

A. T. RASMUSSEN (*The Anatomical Record*, March, 1943) has demonstrated, by the method of gross brain dissection by teasing out fibre bundles, that fibres, apparently originating from the region of the lateral geniculate body, can be followed forward and laterally over the inferior cornu of the lateral ventricle (frequently almost to its very tip) and then backward into the lower or horizontal part of the optic radiations, which course medially under the posterior cornu of the lateral ventricle on approaching the visual cortex. It appears, therefore, that a considerable number of geniculo-calcarine fibres are involved in the loop. Fibres going forward as far as two centimetres are generally evident in gross dissection. The most attenuated portion and scattered fibres may go even farther forward before turning back.

British Medical Association News.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held on June 17, 1943, at the Royal North Shore Hospital of Sydney. The meeting took the form of a number of clinical demonstrations by members of the honorary medical staff of the hospital.

Ulcerative Entero-Colitis.

DR. DOUGLAS ANDERSON showed a boy, aged sixteen years, suffering from pyrexia, diarrhœa and debility, the cause of which was obscure. He had been noticeably unwell since the end of 1941. In 1942 two operations for anal fistula had been performed; but he was not suffering from pulmonary tuberculosis nor had this disease occurred in any member of his family. The diarrhœa had commenced prior to the first operation; it was present intermittently thereafter, constantly for three months before the meeting; the stools were brown and liquid and contained a little blood at times. Hypogastric pain had been present occasionally for about six months, especially prior to defæcation. A large, hard, fixed, tender mass had been palpable low in the right iliac fossa for about six weeks before the meeting, but it had gradually subsided. No tubercle bacilli or other pathogens could be found in the fæces, and he did not react to the intracutaneous tuberculin test. It was difficult to exclude regional ileitis from the differential diagnosis; X-ray examination after an opaque meal revealed excessive motility of the small intestine and spasm and narrowing of the terminal part, but no feature characteristic of intestinal tuberculosis or regional ileitis; moreover the examination after an opaque enema revealed generalized slight ulcerative colitis.

A Bougie for the Treatment of Anal Achalasia.

Dr. Anderson next exhibited a bougie for the treatment of anal achalasia, identical with that described by Sir Arthur Hurst and illustrated in "The British Encyclopædia of Medical Practice", except that it was torpedo-shaped instead of bullet-shaped; in other words, it tapered slightly towards the after end, so that when it was in position and gripped by the anal sphincter it would not easily come out. The bougie was two and a quarter inches long and three-quarters of an inch in its greatest diameter; it was made of vulcanite, channelled through the centre to permit of escape of flatus and flanged at the after end to prevent it from slipping into the rectum. It was recommended that the bougie, well lubricated with soft paraffin, be passed into the anal canal every morning after breakfast and retained for half an hour, after which the patient should attempt to defæcate. The lower part of the bowel should be emptied by means of an enema the day before the first use of the bougie and weekly or fortnightly thereafter. Dr. Anderson said that a child, aged three years, with a large megacolon, who had previously had obstinate constipation and for whom the bougie was made, was able to defæcate spontaneously every day after the bougie had been used for eighteen days. Several times the daily action of the bowels had failed to occur, and resort had again been had to the bougie.

The Handwriting in Chorea.

Dr. Anderson finally exhibited a specimen of the handwriting of a patient suffering from chorea, which affected the right upper limb. It appeared that every now and then the pencil had been jerked away from the writing in one direction or another, so that the letter being formed at the time would be given a long tail. Another specimen of handwriting made by the same patient three weeks later was without any peculiarity. The treatment given during the interval had consisted in the removal of the patient from her home environment; she was given repose, but was not kept idle nor confined to bed.

Acholuric Jaundice.

DR. B. T. SHALLARD showed a male patient, aged forty-eight years, suffering from acquired acholuric jaundice. He had a history of jaundice of four years' duration. He was admitted to the Royal North Shore Hospital on February 13, 1939; for three weeks prior to this he had had dyspnœa on exertion, weakness and some œdema of the ankles. There was no previous history of anæmia or jaundice, and no family history of anæmia could be defined.

On examination, his skin was seen to be a light golden colour. No purpura was present and the liver, spleen and lymph glands were impalpable. A faint systolic apical cardiac murmur was heard. His temperature was 101° F., and no bile was found in the urine. Laboratory investigation revealed a grave anæmia (the erythrocytes numbered 1,000,000 per cubic millimetre and the hæmoglobin value was 26%), an increased blood bilirubin content and the presence of nucleated erythrocytes, pronounced reticulocytosis, spherocytes, increased erythrocyte fragility and considerable anisocytosis and poikilocytosis. Urobilin was present in the urine.

The day after his admission to hospital the patient received 600 cubic centimetres of blood by transfusion. Six days after this he relapsed, and his condition became grave. On the tenth day after his admission splenectomy was carried out by Dr. R. A. Money; this was followed by a massive transfusion of 2,100 cubic centimetres of blood. After splenectomy the anæmia gradually decreased, the jaundic abated, and the reticulocytes diminished in number. The presence of spherocytosis was still noted.

Eight months after splenectomy the erythrocytes numbered 4,400,000 per cubic millimetre and the hæmoglobin value was 76%. Four normoblasts were found for every 200 leucocytes, many spherocytes were present and polychromasia and basophilia were still noted. The leucocytes numbered 11,600 per cubic millimetre.

On April 29, 1943, four years after splenectomy, the patient was readmitted to hospital. For five days prior to this he had suffered from shortness of breath and slight swelling of the ankles. Since his splenectomy operation in February, 1939, until five days before his readmission to hospital, the patient had been quite well and able to carry on his usual occupation of telephone mechanic.

Examination revealed that his liver was just palpable below the costal margin. Various laboratory investigations were carried out. The erythrocytes numbered 3,200,000 per cubic millimetre and the hæmoglobin value was 50%; 50 immature erythrocytes were found for every 200 leucocytes; reticulocytes numbered 10% of the erythrocytes and spherocytes were plentiful. Considerable anisocytosis and poikilocytosis were present. Hæmolysis of erythrocytes began in 0·68% saline solution and was complete in 0·4% saline solution. The leucocytes numbered 12,650 per cubic millimetre. The bilirubin content of the blood was increased, and the capillary fragility test produced normal results. The blood serum was examined by Major Walshe; no atypical iso-agglutinins or iso-hæmolysins were found.

On the patient's nineteenth day in hospital a transfusion of 300 cubic centimetres of blood was given. Two days later the patient experienced pain in the lumbo-sacral region, the right shoulder and the epigastrium, accompanied by a rise in temperature. This reaction was thought probably to be a result of the transfusion. On account of this reaction and because of the chronicity of the anæmia, it was considered that further transfusions were contraindicated. These symptoms disappeared in three days; but his skin then had a lemon yellow tinge.

The patient's general condition, on his discharge from hospital twenty-seven days after admission, was a little improved; but the erythrocytes numbered 2,570,000 per cubic millimetre, the hæmoglobin value was 53% and 47 immature erythrocytes were seen in the counting of 200 leucocytes. Reticulocytes numbered 10% of the erythrocytes, spherocytes were occasionally seen, anisocytosis was pronounced and poikilocytosis was slight. Numerous polychromatic cells containing Howell-Jolly bodies were seen. Hæmolysis of the erythrocytes began in 0·75% saline solution and was complete in 0·5% saline solution. The leucocytes numbered 9,200 per cubic millimetre.

Dr. Shallard said that the patient was presented in order to demonstrate that, although his life had in a crisis been saved by splenectomy, the follow-up after four years revealed a persistence of considerable hæmolysis and the effect thereof on the blood count of the patient.

Dr. Shallard's next patient was a male, aged thirty-nine years, suffering from congenital acholuric jaundice. The patient had a history of intermittent jaundice of thirty-nine years' duration. He was admitted to hospital with the complaint of pains in the abdomen of five weeks' duration, of hæmatemesis present for one day and of melena of twelve hours' duration. The family history was non-contributory, except that the patient's mother had a history of splenic anæmia.

On his admission to hospital the patient was anæmic and emaciated; the spleen was just palpable. Several pathological tests were carried out. The bilirubin level of the blood was found to be 2·0 milligrammes per 100 cubic centi-

metres. The erythrocytes numbered 1,400,000 per cubic millimetre and the hæmoglobin value was 26%; spherocytes were numerous, and hæmolysis of erythrocytes began in 0·5% saline solution. The patient was given the Meulengracht diet and iron was administered; he also received two pints of blood by transfusion. Twenty-four hours after the transfusion, the patient had a rigor followed by a rise in temperature. The pyrexia subsided in a few days. Permission for splenectomy was not granted. The patient's condition slowly improved, and when the improvement was sufficient he was discharged from hospital. At that time a blood examination showed that the erythrocytes numbered 2,000,000 per cubic millimetre, the hæmoglobin value was 42% and spherocytes were numerous.

Examination of his son's blood showed that the erythrocytes numbered 4,300,000 per cubic millimetre, the hæmoglobin value was 80%, spherocytes were numerous and hæmolysis of erythrocytes began in 0·48% solution.

Dr. Shallard said that the patient was shown in order to demonstrate that, although splenectomy had not been performed, the patient had been able over a period of two years to carry out without difficulty his normal occupation of hairdresser.

Granulocytopenia.

Dr. Shallard next showed a female patient, aged twenty years, who was known to have been suffering from granulocytopenia for four years. She had been admitted to the Royal North Shore Hospital on October 24, 1939, suffering from attacks of abdominal pain of which she had complained for the preceding seven weeks. The diagnosis was considered to be appendicitis. Physical examination gave negative results. Four days after her admission to hospital tenderness developed over McBurney's point and close to the midline in the left iliac fossa. A blood count two days after her admission to hospital gave the following information: the erythrocytes numbered 5,100,000 per cubic millimetre and the hæmoglobin value was 77%; the leucocytes numbered 3,100 per cubic millimetre, 13% being neutrophile cells (3% of which were immature), 52% lymphocytes, 27·5% monocytes, 6·5% eosinophile cells and 1% basophile cells. Cultural and chemical examination of the fæces respectively revealed no typhoid or paratyphoid bacilli and no blood. Examination of the urine for lead gave negative results. Cultural and microscopic examination of the throat swabbings revealed no Vincent's angina organisms and no hæmolytic streptococci. A fractional test meal examination revealed complete achlorhydria. The serum bilirubin content was 0·25 milligramme *per centum*. The Van den Bergh test produced an indirect reaction. No agglutination occurred with *Brucella abortus*. A test for the presence of heterophile antibodies gave a negative result. An X-ray examination of the chest and mediastinum gave normal findings.

On the patient's twenty-fifth day in hospital a course of thirteen intramuscular injections of "Pentnucleotide" was started, ten cubic centimetres being given per day. This caused only a slight increase in the number of leucocytes—an increase to 3,500 per cubic millimetre lasting for about three weeks. Six and a half weeks after her admission to hospital a blood transfusion of 500 cubic centimetres was given and appendicectomy was successfully carried out by Dr. R. A. Money. Convalescence was uneventful. The average number of leucocytes during her stay in hospital was 3,300 per cubic millimetre, and after appendicectomy it rose to 3,700 per cubic millimetre, 52% being neutrophile cells. The number of leucocytes during the first eight months after her discharge from hospital was within normal limits. After an interval of three and a half years the number of leucocytes was 2,600 per cubic millimetre, 34% being neutrophile cells.

Dr. Shallard said that the patient was shown because of the general interest of her condition, and because of the fact that in spite of the neutropenia she suffered from no illness apart from two pustules in the axilla. As the possibility of hypersplenism was considered, a bone marrow biopsy or sternal puncture to determine the possible presence of marrow hyperplasia was desired, but was refused by the patient. However, as the number of platelets was normal throughout, it was considered that this condition probably did not exist. The patient was to be kept under observation, but no further treatment was proposed.

Patent Ductus Arteriosus.

Dr. Shallard finally showed a female patient, aged eight years. Two years earlier the patient had consulted the school doctor complaining of frequent colds and poor nutrition. She was then referred to the Royal North Shore Hospital for further examination. The family history was non-contributory. The child had had severe *asphyxia livida* at birth. On examination she was seen to be a thin, pale child. The pulse was regular in time and amplitude. The apex beat was diffuse and visible in the fourth left intercostal space, three inches from the mid-line. A thrill was present in the second intercostal space at the left border of the sternum. On auscultation over this area a loud, low-pitched, almost continuous rumble with a systolic increment was audible. The murmur was conducted towards the middle of the left clavicle. The heart sounds were normal in other areas. Neither clubbing of the fingers nor cyanosis was noticed. An antero-posterior X-ray film of the heart revealed a widening of the base of the cardiac shadow. The electrocardiogram revealed no abnormality. A diagnosis of patent *ductus arteriosus* was made.

On reexamination of the child in June, 1943, X-ray examination gave no further information. A blood count revealed no plethora, and gave the following information. The erythrocytes numbered 4,000,000 per cubic millimetre and the hæmoglobin value was 95%; the leucocytes numbered 6,700 per cubic millimetre, 44·5% being neutrophile cells, 58·5% lymphocytes, 6·0% monocytes and 1·0% eosinophile cells. The degree of oxygen unsaturation of the arterial blood was 19·85%.

Dr. Shallard said that the patient was shown, not because of the rarity of the condition, but because it had been studied with the intention of having the patent *ductus arteriosus* ligated surgically. The object of the treatment was to prevent the onset of subacute bacterial endocarditis, which was the cause of death in a fairly high proportion of such cases. The operation had been successfully performed in a number of cases in the United States of America, but so far as was known at the moment had not been undertaken in Australia.

(To be continued.)

Post-Graduate Work.

WEEK-END COURSE AT NEWCASTLE.

THE New South Wales Post-Graduate Committee in Medicine announces that a week-end course will be held at Newcastle in conjunction with the Central Northern Medical Association on Saturday, October 23, and Sunday, October 24, 1943. The programme of the course will be as follows:

Saturday, October 23.

At Newcastle Base Hospital.

2 p.m.—Registration.
2.30 p.m.—"Surgical Application of the Sulphonamides": Captain A. F. Jonas, 118th General Hospital, United States Army.
4 p.m.—"Some Recent Advances in Chemotherapy": Captain A. McGee Harvey, 118th General Hospital, United States Army.

Sunday, October 24.

At Newcastle Base Hospital.

10 a.m.—"Split Thickness Grafts with the Use of a Padgett Dermatome": Captain A. F. Jonas.
11.30 a.m.—"Pain": Captain A. McGee Harvey.
2 p.m.—"Recent Advances in Obstetrics": Dr. T. Dixon-Hughes.
3 p.m.—"Dysenteries Including Gastro-Enteritis": Dr. C. G. McDonald.

The fee for the course will be £1 1s., except for members of the defence forces, who may attend the course without fee. Those intending to be present are requested to notify Dr. O. J. Ellis, Honorary Secretary, Central Northern Medical Association, Newcastle, as soon as possible.

Australasian Medical Publishing Company, Limited.

ANNUAL MEETING.

THE annual meeting of the Australasian Medical Publishing Company, Limited, was held at The Printing House, Seamer Street, Glebe, New South Wales, on August 27, 1943, Dr. T. W. Lipscomb, the chairman, in the chair.

Directors' Report.

The report of the directors of the company was as follows:

The directors submit their report for the twelve months ended June 30, 1943, together with the profit and loss account for the twelve months ended June 30, 1943.

It is with regret that we report the sudden death on June 2, 1943, in Melbourne of Dr. R. H. Fetherston. The late Dr. Fetherston was one of the original members of the company and had been associated with it for thirty years. He was a director from August, 1917, to March, 1918, and from March, 1929, to August, 1938, and when he tendered his resignation from the Board on July 27, 1938, the directors placed on record their appreciation of his many years of service.

During the year contributions to THE MEDICAL JOURNAL OF AUSTRALIA covered a wide range of subjects, but unfortunately shortage of paper has restricted the number and size of articles, and some useful contributions have had to be refused. Every opportunity has been taken to cooperate with the medical services of the Navy, Army and Air Force and with the Medical Equipment Control Equipment Committee. The supplement on war medicine and surgery has been of great assistance to medical officers of the three services and civil practitioners, and appreciation has been received from readers overseas.

Despite difficulties in regard to manpower and paper, the output of the printing and publishing department was satisfactory. The production during the year was mainly of a scientific and educational nature, and it is hoped that in the future paper will be made available by the authorities to maintain in print educational and scientific works.

An extraordinary general meeting of members of the company has been called for August 27, 1943, for the purpose of submitting to members a special resolution in connexion with several minor alterations to the Articles of Association. A notice setting out the proposed alterations was posted to all members on July 12, 1943. The directors believe that the amendments are necessary in order to preserve the federal character of the direction of the company, particularly in view of the conditions existing as a result of the war.

Depreciation amounting to £979 was written off during the year, and an amount of £932 has been provided for taxation. The company's reserves are used in the business, and after taking into consideration wartime restrictions and conditions, we consider the state of the company's affairs is satisfactory.

Provision has been made for the payment of debenture interest for the twelve months ended June 30, 1943.

Dr. W. L. Crowther and Dr. D. D. Paton retire from office by rotation in accordance with the Articles of Association (Article 39). They are eligible and present themselves for reelection.

T. W. LIPSCOMB, Chairman.

July 28, 1943.

Election of Directors.

Dr. W. L. Crowther and Dr. D. D. Paton were elected to the Board of Directors.

Correspondence.

THE LATE RICHARD HERBERT JOSEPH FETHERSTON.

SIR: Among the many public and philanthropic services rendered to the community by the late Dr. R. H. Fetherston were those arising out of his work in connexion with the Victorian Medical Benevolent Association of which he was President at the time of his death.

The following is the record inserted in the minutes of the Association.

> The late Dr. R. H. Fetherston joined the Committee of the Victorian Medical Benevolent Association in 1928, became a Vice-President in 1931 and President in 1933, a position he continued to hold till his death. He took a very active part in the work of the Association, and among other services he was instrumental in securing for the Association the valued cooperation of the Victorian Branch of the British Medical Association. This resulted in a wide publicity for the work of the Association and in a large increase in its membership.
>
> He took a deep personal interest in all applicants for assistance, visiting them in their homes and endeavouring to restore them to a position of self-support and independence.
>
> He was specially interested in the welfare of orphaned children and young people disadvantaged by the misfortunes of their parents.
>
> His death in his sleep robbed the Association of a true friend and zealous President.

Yours, etc.,

EDWARD L. GAULT,
Honorary Secretary, Victorian Medical Benevolent Association.

2, Collins Street,
Melbourne,
September 4, 1943.

WAR MEDICINE AND SURGERY.

SIR: The supplement issued with the journal of August 21, "War Medicine and Surgery", compiled under the direction of the Committee on the Survey of War Medicine of the National Health and Medical Research Council and headed "Bacillary Dysentery", contains the following paragraph:

> 2. *Diet.*—Patients should receive nothing but water for the first twelve hours. They are then given small but frequent feeds of a non-residue, semifluid diet consisting of such foods as weak tea, biscuits, jelly, beef tea, chicken soup, "Bovril", "Ovaltine", arrowroot and sago. Milk is best avoided because the curds irritate the intestine.

I venture to point out that after all, "Bovril" is but an excellent stimulant, and "Ovaltine", though good nourishing food, must be made with milk, and thus the curd irritation still exists.

On Gallipoli I found a combination of dry chocolate and Horlicks a most beneficial form of diet for dysenterics. Chocolate possesses important food value and Horlicks provides sound basic nutrition of low residue, minus curd tension, and is rapidly assimilated.

Yours, etc.,

LEONARD AVERY.

Horlicks Proprietary Limited,
66, King Street,
Sydney.

THE PARLIAMENTARY JOINT COMMITTEE'S REPORT.

SIR: Your leading article in THE MEDICAL JOURNAL OF AUSTRALIA of September 4, 1943, very properly points out the confusion of thought on the subject of reform of health services. It is very disappointing to medical practitioners that neither the National Health and Medical Research Council nor the Parliamentary Joint Committee on Social Security has defined with any precision what it means by "a general medical service"; but from the inferences to be drawn from the report of the latter committee, it would appear that all means of medical advice, care and attention are to be made available to every person without any direct charge. My long experience in general practice, and especially my experiences as an area medical officer in one of the most thickly populated areas of the Commonwealth, have convinced me that any such scheme would prove unworkable, because of the small percentage of people who would wreck such a scheme by their inability to value such a privilege and by their abuse of it. Such a minority is sufficiently large and selfish to make unjust demands and claim priorities; this fact is recognized by the Parliamentary Joint Committee on Social Security, as is shown by paragraphs 120 to 123 of its report.

Another disappointment is the confusion of thought revealed in paragraph 10, quoted by you. Owing to this grouping of preventive medicine, public health and government finance with the negative statement relating to the general practitioners, confusion must arise in the mind of the reader, and an unjust reflection upon the work of general practitioners will be the impression spread abroad in the public mind.

Then again, is it not unscientific that such statements as those quoted by you as contained in the report of the Medical Survey Committee, on the subjects of general practice and public health, should emanate from a committee composed of men and women without practical experience of general practice, who make no claim to have investigated the practice of any one general practitioner in any one State? I wonder how Dr. Brown can have allowed such disparaging and negative statements to pass. I am sorry

to say that such statements cannot but create a sense of distrust in the public mind, as well as causing more antagonism between public health staffs and general practitioners. I believe that even the most "indifferent" general practitioner does valuable work in preventive medicine and public health among the people who seek his advice; examples are the instillation of silver nitrate into the eyes of infants, immunization against diphtheria, and so on. I believe that smallpox was stamped out in England by the work of general practitioners acting with the public health authorities, and that the main brunt of the work fell upon the general practitioners as having first contact with those to be vaccinated. As you state in your concluding paragraph, the work of the health department and the general practitioner must be complementary. I suggest that this paragraph should be incorporated in the preamble of any scheme of medical service to the community, and I much regret that the two committees quoted by you have not in this important matter taken care to clarify with precision the terms they have used.

Yours, etc.,

A. M. DAVIDSON.

Edgeware Road,
Enmore,
New South Wales.
Undated.

SIR: Captain Dunkley's letter drawing attention to the part played by alcohol in the transmission of venereal infection should receive unanimous approval.

In Brisbane, in an investigation of venereal disease "48 out of 100 cases taken at random were drunk when they became infected". But this is only one aspect of the effects of alcoholic excesses, and the time is long overdue for medical men to come forward and demand practical liquor reforms.

We have always led in the fight against preventible disease, why not against alcohol, the insidious ally of disease? There would be no need to advocate prohibition if the objectives proposed by the Liquor Reform Society of Brisbane were brought into being, namely:

1. That the alcohol content of beer be reduced to not greater than 5% (proof spirit) and all spirituous liquors and fortified wines be rationed.
2. That a Federal Commission responsible to Parliament be appointed to control the manufacture and distribution of liquor in the best interest of the public.
3. The closed bar system should be abolished.
4. An educational campaign in the serious physical and social effects of alcoholic excesses.

Would it not be possible for the British Medical Association of each State to form a committee with other citizens representing all sections of the community, as has been done in Brisbane, for the purpose of advocating control of liquor in such a way that it will no longer menace the well-being and dignity of our people?

Yours, etc.,

L. J. JE-NYE.

Brisbane Clinic,
Wickham Terrace,
Brisbane.
September 14, 1943.

ADVICE URGENTLY REQUIRED.

SIR: "Perplexed" does not tell us how long the abdominal colicky pain lasts. If a short period of half an hour or so, as I should guess, the pain would be quickly relieved by the inhalation of amyl nitrite, bearing in mind that morphia is easily the best anodyne for pain except the shock of it, as Kipling said. It has always been my custom to warn patients suffering from severe colic, biliary or renal, that morphia will aggravate the pain (excitement stage) before sedation, and to check this I have left a capsule of amyl nitrite for use in such a case. The drug is of greater value than generally recognized. The late Francis Hare advised its use in internal hæmorrhage. It is a comforting part of first aid to persons subject to hæmoptysis or hæmatemesis and of great value in bleeding enteric patients. "Perplexed" refers to a looming gynæcological operation; I wonder if it is hysterectomy for menopausal menorrhagia. If so, ten drops of *Tinctura Cannabis Indica t.d.s.* will almost certainly save operation. I hope my guess is correct.

Yours, etc.,

A. C. F. HALFORD.

Brisbane,
September 13, 1943.

Medical Prizes.

THE STAWELL PRIZE.

THE STAWELL PRIZE, a memorial to Sir Richard Stawell, is open for competition. The amount of the prize is £30. The conditions are as follows:

1. The prize shall be awarded to the writer of the essay adjudged to be the best on a subject selected annually.
2. The subject for 1943 is "Psychiatric Aspects of the Present War".
3. The dissertation should be based on personal observation and experience of the writer.
4. The competition is open to graduates of any Australian university.
5. The trustees reserve the right to withhold the award.
6. Essays must be delivered to the Medical Secretary, British Medical Association (Victorian Branch), by 4 p.m. on November 30, 1943.
7. Each essay must be typewritten or printed and must not exceed 75,000 words in length.
8. Each essay must be distinguished by a motto and must be accompanied by a sealed envelope marked by the same motto, containing the name and address of the author.
9. The trustees reserve the right to publish the prize essay.

Obituary.

WILLIAM JAMES EASTWOOD.

A CORRESPONDENT who wishes to remain anonymous writes the following appreciation of the late Dr. William James Eastwood.

The death of William James Eastwood at the age of forty while on service in the Middle East will be mourned by all his Australian friends, of which he had many. It is safe to say that all those Australians who have pursued post-graduate courses in orthopædics in Liverpool since 1927, had met him, and will remember him with affection. He had further Australian ties in that his sister married the late Dr. L. W. N. Gibson, of Brisbane. In the *British Medical Journal* of May 22, 1943, Mr. T. P. McMurray paid tribute to his "short but brilliant surgical career", and "his orthopædic skill which has been recognised internationally", and he appeared to be the logical successor to McMurray in the Liverpool teaching school; but it is chiefly as a friend that we still remember him.

When I first met him he was vice-captain of the Liverpool University rugby team, and played as wing three-quarter for Lancashire. After qualifying he obtained the position of house surgeon to Mr. T. P. McMurray, and from that time onwards devoted himself to orthopædics with that singleness of purpose and thoroughness which, added to his natural ability, carried him so far. For years he worked tremendously long hours. In pre-war years he held the posts of assistant orthopædic surgeon to Mr. McMurray at the Northern Hospital, and was orthopædic surgeon to Alder Hey and to the Wigan Infirmary. He was retained in his civil occupation through the blitz (in which his house was destroyed) till 1941, when he was transferred to the army. At the time of his death he was consultant orthopædic surgeon to Middle East Forces.

Eastwood possessed a quick sense of humour, and enjoyed the company of his friends, who were numerous; he was a good "mixer". His kindliness, tolerant outlook and broad humanity were outstanding; and despite his busy life he was never too busy to assist others in their troubles. Those of us who were privileged to know Jimmy Eastwood will feel that any future visit to Liverpool will only intensify our present sense of loss.

JULES DELEPHINE.

WE regret to announce the death of Dr. Jules Delephine, which occurred on September 14, 1943, at Woy Woy, New South Wales.

JOHN EDWARD JAMES DEANE.

WE regret to announce the death of Dr. John Edward James Deane, which occurred on September 14, 1943, at Essendon, Victoria.

JOHN EDWARD NIHILL.

We regret to announce the death of Dr. John Edward Nihill, which occurred on September 16, 1943, at Kooyong, Victoria.

Notice.

A CLINICAL AFTERNOON will be held at the Mental Hospital, Rydalmere, New South Wales, on October 1, 1943, at 2.30 p.m. o'clock. The programme includes demonstrations as follows: (a) cases of pituitary dystrophy, (b) a case of Paget's disease, (c) a case of possible cortical cerebellar atrophy, (d) unusual malformations of bone, (e) surgical and skin conditions for diagnosis. Members of the British Medical Association are invited to attend.

THE biannual meeting of the Royal Australasian College of Physicians is now being held in the College Building, 145, Macquarie Street, Sydney. The scientific sessions are set down for Friday, September 24, at 2.15 o'clock p.m., and Saturday, September 25, at 10.30 o'clock a.m.

Nominations and Elections.

THE undermentioned have applied for election as members of the South Australian Branch of the British Medical Association:

Short, David Weddell, M.B., B.S., 1940 (Univ. Adelaide), 2, Maroong Avenue, Broadway, Glenelg.
Carter, John Joseph, L.R.C.S.I., L.R.C.P.I., L.M. (R.C.P.S.I.), L.R.C.O.G., L.M. Rot. Dublin, 1937, No. 2 Explosives Factory, Box 142417, G.P.O., Adelaide.
Glastonbury, Kerin, M.B., B.S., 1926 (Univ. Adelaide), 117, Henley Beach Road, Torrensville.

The undermentioned have been elected members of the South Australian Branch of the British Medical Association:

Lloyd, Hugh Arthur, M.B., B.S., 1940 (Univ. Adelaide), Tailem Bend.
Yates, Percy Cocker, M.B., B.S., 1942 (Univ. Adelaide), Busselton, Western Australia.

The undermentioned have been elected as members of the New South Wales Branch of the British Medical Association:

Balthasar, Anthony Pierre, M.B., B.S., 1943 (Univ. Sydney), 574, New South Head Road, Double Bay.
Bardsley, Betty Adelaide, M.B., B.S., 1943 (Univ. Sydney), Balmain Hospital, Booth Street, Balmain.
Cameron, Ralph George Bryant, M.B., 1938 (Univ. Sydney), NX70217, Major R. G. B. Cameron, 102 Australian C.C.S., Australia.
Dick, Heather Daphne, M.B., B.S., 1933 (Univ. Sydney), 2, Fullerton Street, Woollahra.
Donaldson, Edgar John, M.B., B.S., 1943 (Univ. Sydney), Sydney Hospital, Sydney.
Finlay-Jones, Lionel Robert, M.B., B.S., 1943 (Univ. Sydney), "Hilsyde", Hilder Street, Camden.
Fitzgerald, Gerald, M.B., B.S., 1938 (Univ. Sydney), NX117615, Captain G. Fitzgerald, 18 Australian Field Regiment, A.I.F., Australia.
Giblin, Frederick John Dexter, M.B., B.S., 1943 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.
Hemmingway, Clifford Kenneth, M.B., B.S., 1942 (Univ. Sydney), 10, Bellevue Street, Kogarah.
Inglis, William, M.B., B.S., 1943 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.
Kater, Norman Murchison, M.B., B.S., 1943 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.
Leighton, Isabel Emily, M.B., B.S., 1942 (Univ. Sydney), 10, Bellevue Street, Kogarah.
Lilley, Ian Mitford, M.B., B.S., 1943 (Univ. Sydney), 267076, Flight Lieutenant I. M. Lilley, Medical Section, R.A.A.F., Sandgate, Queensland.
McGeoch, Arthur Hector, M.B., B.S., 1943 (Univ. Sydney), Royal Prince Alfred Hospital, Camperdown.
McInerney, John Cranstoun, M.B., B.S., 1940 (Univ. Sydney), Captain J. C. McInerney, 2/2 Australian Independent Company, Australia.
McKee, James Frank Stewart, M.B., B.S., 1938 (Univ. Sydney), Edenham, Orana Avenue, Pymble.
Newton, Noel Curtis, M.B., B.S., 1941 (Univ. Sydney), Saint Vincent's Hospital, Darlinghurst.
Repin, Stella, M.B., B.S., 1940 (Univ. Sydney), 24, Benelong Crescent, Bellevue Hill.

Diary for the Month.

SEPT. 28.—New South Wales Branch, B.M.A.: Medical Politics Committee.
SEPT. 30.—New South Wales Branch, B.M.A.: Branch.
OCT. 1.—Queensland Branch, B.M.A.: Branch.
OCT. 5.—New South Wales Branch, B.M.A.: Council Quarterly.
OCT. 6.—Victorian Branch, B.M.A.: Branch.
OCT. 6.—Western Australian Branch, B.M.A.: Council.
OCT. 7.—South Australian Branch, B.M.A.: Council.
OCT. 8.—Queensland Branch, B.M.A.: Council.
OCT. 12.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
OCT. 12.—New South Wales Branch, B.M.A.: Organization and Science Committee.
OCT. 12.—Tasmanian Branch, B.M.A.: Branch.
OCT. 19.—New South Wales Branch, B.M.A.: Ethics Committee.
OCT. 20.—Western Australian Branch, B.M.A.: Branch.
OCT. 21.—New South Wales Branch, B.M.A.: Clinical Meeting.
OCT. 22.—Queensland Branch, B.M.A.: Council.
OCT. 26.—New South Wales Branch, B.M.A.: Medical Politics Committee.
OCT. 27.—Victorian Branch, B.M.A.: Council.
OCT. 28.—New South Wales Branch, B.M.A.: Branch.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 175, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility unless such a notification is received within one month.

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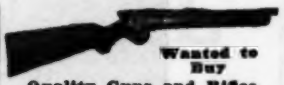

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